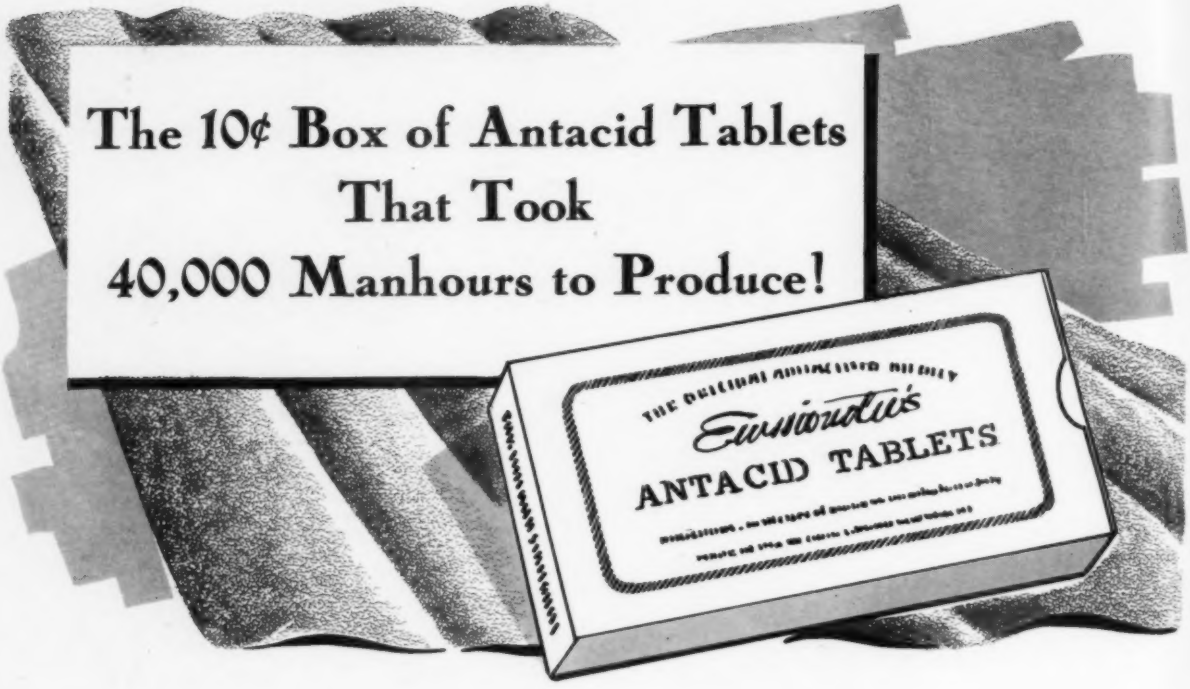
Drug & Cosmetic INDUSTRY

June 1947



The never-ending research by the makers of antacid tablets total well into the thousands of manhours. Coupled with those hours spent in Industrial Chemical Sales' research, the sum is staggering.

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Drug & Cosmetic INDUSTRY

JUNE 1947

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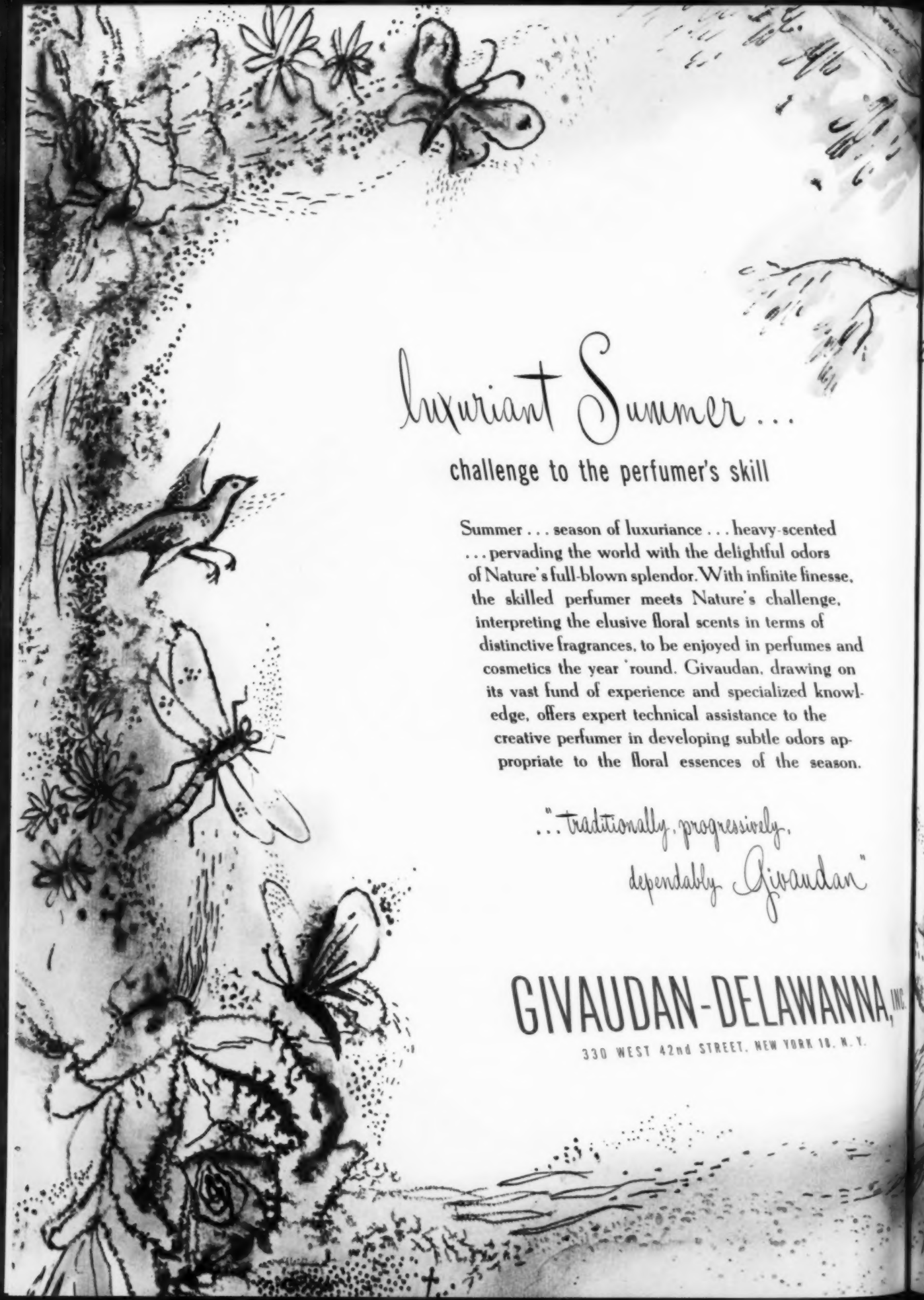

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L. SONNEBORN SONS, INC.

PETROLATUMS

The facts about soft-type micro-crystalline waxes with multiple industrial applications

Petrolatum is an unctuous mass composed of liquid and solid hydrocarbons which at ordinary temperatures is solid. Although there is a close relationship between petrolatum and paraffin wax, there is this difference: paraffin wax forms crystalline aggregates, while petrolatum is amorphous or, as recently established, micro-crystalline. It can therefore be defined as a "soft-type micro-crystalline wax".

We can imagine that petrolatum is a colloidal system in which the solid wax (solid hydrocarbons) is the external phase, and the oil the internal phase. In other words, the wax absorbs the oils just as gelatin does water, causing the formation of a jelly-like mass. This explains the fact that petrolatum in its concentrated form will not leave an oil spot on paper, showing that the wax is the external phase. For a system to form in this manner, and not have the liquid separate from the solid hydrocarbons in time, a third component is necessary. This substance acts as a gel former and is called "proto-substance," a discovery of the Sonneborn research laboratories.

Importance of Proto-Substance

An insufficient amount or complete lack of proto-substance upsets the balance of solid and liquid components of the petrolatum and, as a result, such petrolatum has a tendency to separate and cause objectionable "sweating". Therefore, the presence of an ample amount of proto-substance in a petrolatum is absolutely essential to prevent "sweating". In addition, proto-substance contributes to the emollient or soothing properties of petrolatum. In order to preserve the proto-substance, no drastic methods (such as intense heating or strong chemicals) should be employed in the refining of petrolatum.

Proto-substance is present in satisfactory amounts in Sonneborn U. S. P. Petrolatums, which are refined by adsorption. This is done by selective filtration of the crude petrolatum to remove impurities that impart color, odor and taste. The more often the filtering process is repeated, the lighter will be the color of the petrolatum. Hence, the color range from amber to snow white.

Sonneborn U.S.P. Petrolatums, prepared as described above, conform to specifications rigidly defined by the U. S. Pharmacopoeia. They can be divided into three distinct types, according to melting point and consistency, and then subdivided according to color into individual grades.

TYPICAL TEST DATA ON SONNEBORN U. S. P. PETROLATUMS

	Type I *Medium Consistency*	Type II *Soft Consistency*	Type III *Medium Consistency, High Melting Point*
Saybolt Melting Point	*110/122°F.*	*104/116°F.*	*125/135°F.*
A.S.T.M. Melting Point	*112/124°F.*	*106/118°F.*	*127/137°F.*
A.S.T.M. Consistency	*160/200*	*200/240*	*170/200*
Flash Point	*410/430°F.*	*360/370°F.*	*360 370°F.*
*Lovibond Color**	*¾ Y-35Y3R*	*5Y-35Y1R*	*¼Y*
N.P.A. Color	*White—3*	*¾—2¼*	*White*

**Types I and II—½" and 2" cell. Type III—3" cell.*

Three Types of Petrolatum

Type I (PROTOPET)—medium melting point (110/122°F.) and medium consistency, colors from white to yellow—is the petrolatum of commerce, numbering among its many applications pharmaceutical and cosmetic preparations, rubber plasticizing, paper impregnation, base for rust preventives, and other uses.

Type II (FONOLINE)—low melting point (104/116°F.) and soft, easy-spreading consistency, white or yellow—is employed as base when a large amount of solid ingredients is to be added. This type is not recommended when a large amount of liquid ingredients, such as white mineral oil, is part of the formula. FONOLINE petrolatums are often referred to as collapsible type or ointment grade.

Type III (PERFECTA)—high melting point (125 135°F.) and medium consistency, white only—is limited in use to those products, such as certain cosmetic creams, where a large amount of liquid addition is anticipated which would reduce the melting point of the finished product.

There is usually a specific U.S.P. petrolatum for any given purpose. In addition, special grades can be refined to meet individual specifications. The Sonneborn research staff will be glad to cooperate with prospective users in determining which type or grade is best suited to the requirements of a specific problem. Address White Oil and Petrolatum Division, L. SONNEBORN SONS, INC., Dept. DC, 88 Lexington Avenue, New York 16, N. Y.

SONNEBORN

DEVELOPING BASIC MATERIALS FOR BASIC INDUSTRIES

A flaw that containers can't hide

AT THE COUNTER

If your product is in a transparent container and has an uneven distribution of color and body, its display value is greatly harmed. It offers less sales appeal to the discriminating buyer.

IN THE HOME

Even if your product is in an *opaque* package, undesirable qualities such as watery or oily separation, a "settled out" or curdled appearance will be revealed when it is ready for use.

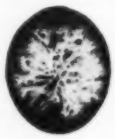
GIVE YOUR PRODUCT AN EVEN AND *LASTING* DISTRIBUTION OF COLOR AND BODY WITH KRAYSTAY, THE CARRAGEEN-BASE STABILIZER MADE BY KRAFT.

This remarkable stabilizer, used in varied proportions, has unusual stabilizing, emulsifying, thickening, suspending and gelling properties. Kraystay is adaptable to use in cream lotions, hand lotions, toothpaste, cosmetics, pharmaceuticals, foods and many other products of medium or low acidity.

Many progressive manufacturers have found that Kraystay definitely improves their products through an even and *lasting* distribution of color and body.

Don't overlook the possibilities of improvement. Call or write today stating the nature of your product. Or, if you wish to submit your formula, Kraft technicians will be glad to assist you in the application of Kraystay to it. Kraft Foods Company, Dept. Y-7, 500 Peshtigo Court, Chicago 90, Illinois.

FROM TINY FRONDS OF CARRAGEEN (edible Irish moss) gathered from the cold ocean floor, Kraft extracts a clear, pure vegetable gelose for use in the manufacture of Kraystay. Modern scientific laboratory control insures the uniform high quality of this consistently efficient stabilizer.



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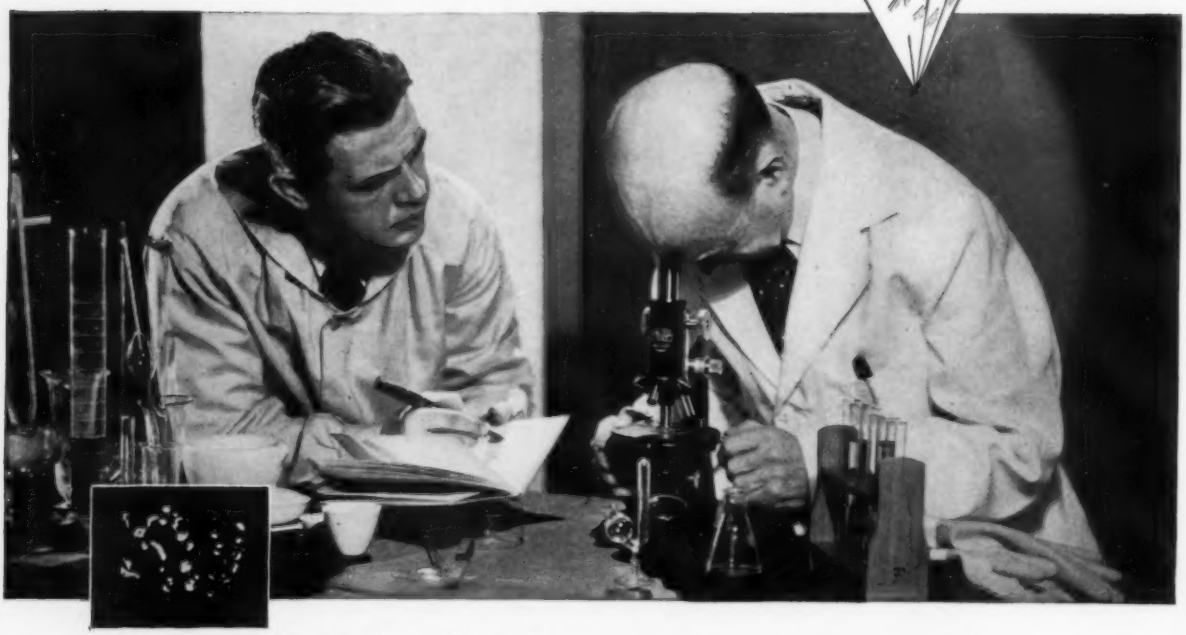
A Diamond in the rough needs Polishing



GUMS in their crude state need *Evenizing

Regardless of the care exercised in the gathering and assorting of the crude gums, certain irregularities created by Nature are present.

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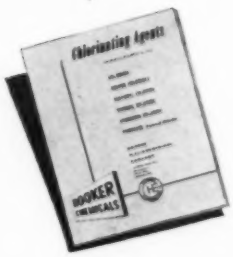

The Hooker Sulfur Chlorides, mono- and di-, provide convenient sources of chlorine in chemical processes where the use of elemental chlorine is not feasible. In these Hooker products you can always be sure of a carefully controlled chlorine content. The Monochloride contains a minimum of 50% chlorine, while the Dichloride has a minimum of 66% chlorine.

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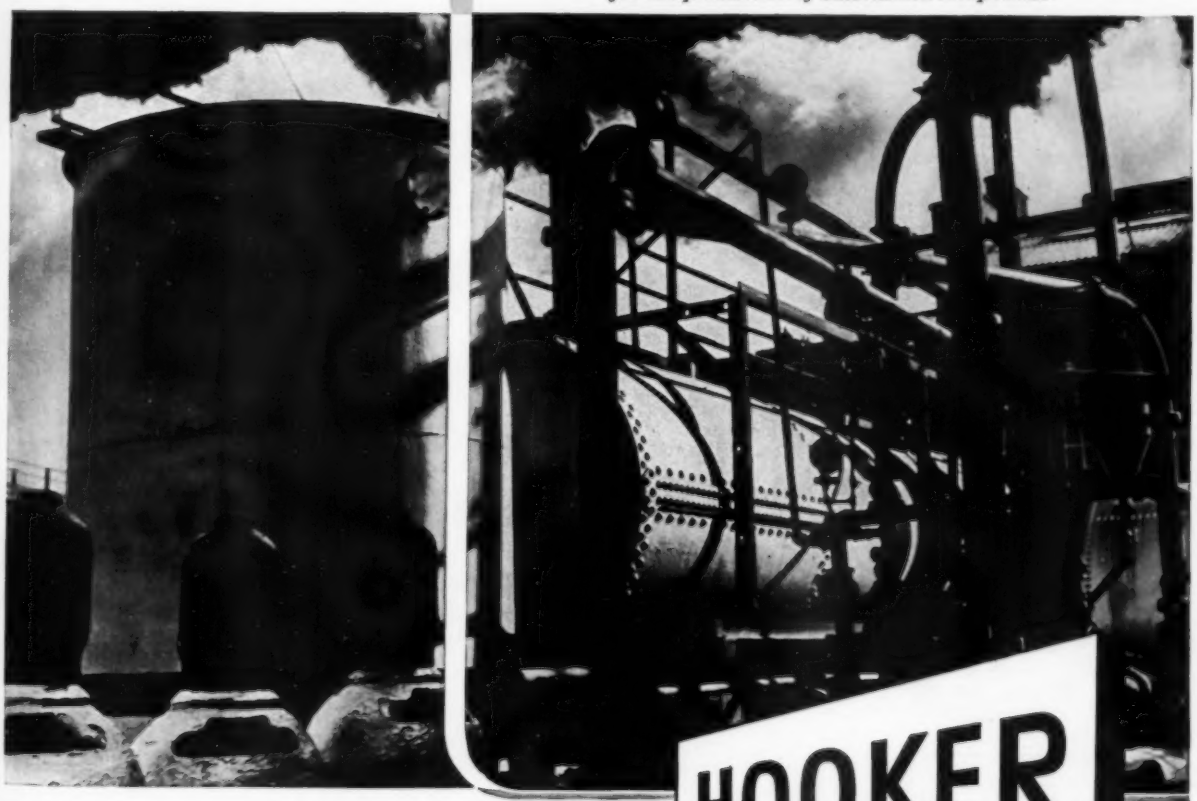
Sulfur Dichloride may be used as a chloridizing agent in the refining of various sulfide ores; as a reagent in the manufacture of organic acid anhydrides, various rubber substitutes and other organic chemicals.

Sulfur Monochloride is also used in the manufacture of a variety of organic chemicals. It has been used as an agent for the cold vulcanization of rubber products and in the manufacture of rubber substitutes. It may be used as a solvent for sulfur and as a polymerization catalyst to increase the viscosity of fatty acids.

Hooker Bulletin 328A, "Chlorinating Agents," gives more detailed information on the possible uses of these two Hooker products as well as other Hooker Chlorinating Chemicals. Technical Data Sheets Nos. 759 and 760 describe in more detail the physical properties of the Hooker Sulfur Chlorides. Copies of these bulletins will be sent when requested on your business letterhead. Your problems in handling these Hooker Chemicals will receive the careful attention of our Technical Staff.

A part of the Hooker facilities for the production of chlorinated compounds.



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CHEMURGIC DIVISION

Division of National Dairy Products Corporation

MONTREAL, CANADA

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objectives and perspectives

While we have been manufacturing Private Brand Cosmetics longer than most Companies, our contention is that it is not the age of a company, but the seasoned experience of its members that endows it with dependability.

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Unlimited service to a limited number of clients has yielded excellent results. We have been most cautious in avoiding rapid expansion, knowing, full well, that mushrooming often produces toadstools.

These, in brief, are the objectives and perspectives to which we tenaciously adhere. And, we harbor the notion that your ship will come in provided you engage... the *right* skipper.

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Kolmar COSMETICS Coast TO Coast

★ Laboratories and plants
● Sales offices

The opening of the new Hollywood Kolmar plant gives us five strategically-located plants in the United States and one in Canada. The result is a valuable saving of time and carrying charges in the delivery of your product . . . and should one of our plants be temporarily incapacitated for any reason, production of your cosmetics would immediately be continued at another Kolmar plant. No other one private label cosmetic manufacturer can assure you of this speedy, economical, country-wide service.

Each one of our plants affords the most modern production facilities and the same high type of technical skill necessary to produce scientifically-tested formulas . . . the kind that has won recognition for Kolmar as the world's largest exclusive producers of private label cosmetics.

KOLMAR products include Lip Stick, Dry Rouge, Loose Face Powder, Cake Make-Up, Foundation Creams, Liquid Make-Up, Eye Shadow, Mascara, Lotions, Colognes, Perfumes and other cosmetics. We are also known as the world's largest producers of Vanity Puffs.

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Rossville Hexagon* Cologne Spirits
Rossville Algrain* Alcohol U.S.P.
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CALCO's Bulk Pharmaceuticals

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(powder or micro crystal)
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Sodium Sulfapyridine
Amino Acetic Acid N. F.
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Choline Chloride
Choline Dihydrogen Citrate
Cinchophen N.F.
(and Sodium Salt)
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CALCO'S capacity to manufacture bulk pharmaceuticals in large quantity is one reason why you should depend upon this company as your source of supply for present and future needs.

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★ *Technical bulletins available*

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B&A Salicylamide, Purified, is but one of the many B&A Fine Chemicals available to the drug industry in commercial quantities today. This white to slightly pink powder offers the same uniform purity lot after lot . . an important advantage in any material for pharmaceutical manufacture. Each batch analysis reaffirms its consistently low iron and arsenical content.

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B&A Diphenyl Carbonate (Carbonic Acid, Diphenyl Ester) is one of the many new industrial chemicals available today from General Chemical Company's Baker & Adamson Division. Already in use for certain pharmaceutical manufacturing purposes, this basic organic chemical may prove suitable for your process too. Since this white crystalline material is commercially available it merits full consideration for your research or product development programs.

* This is the sixth in a series of advertisements reviewing the B&A Fine Chemicals commercially available to American Industry today from the Baker & Adamson Division of General Chemical Company. These three and many other B&A purity products have special applications in the field of pharmaceutical manufacture. To learn more about the above, or other B&A Fine Chemicals that meet your requirements, write or phone nearest B&A Sales and Technical Service Office.

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In developing your perfumes, soaps, cosmetics, and specialty products, add the fragrance of sales provided by Monsanto synthetics — Ethavan,* Methyl Salicylate, U.S.P. (Synthetic), Benzyl Benzoate and Coumarin Monsanto.

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LANOLIN ABSORPTION BASES

PROTEGIN X—*For Nite Creams and Ointments.*
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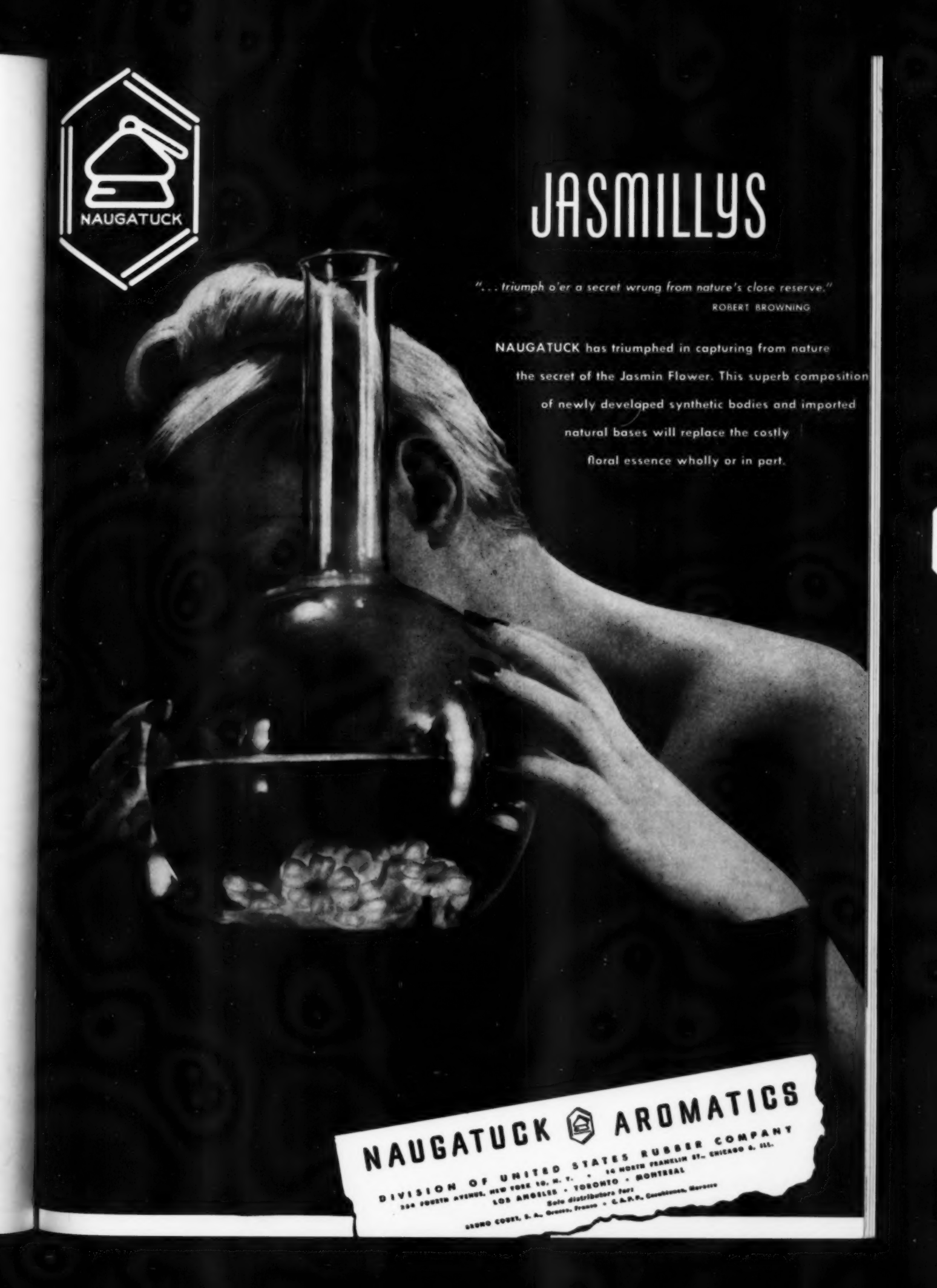
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NAUGATUCK has triumphed in capturing from nature the secret of the Jasmin Flower. This superb composition of newly developed synthetic bodies and imported natural bases will replace the costly floral essence wholly or in part.
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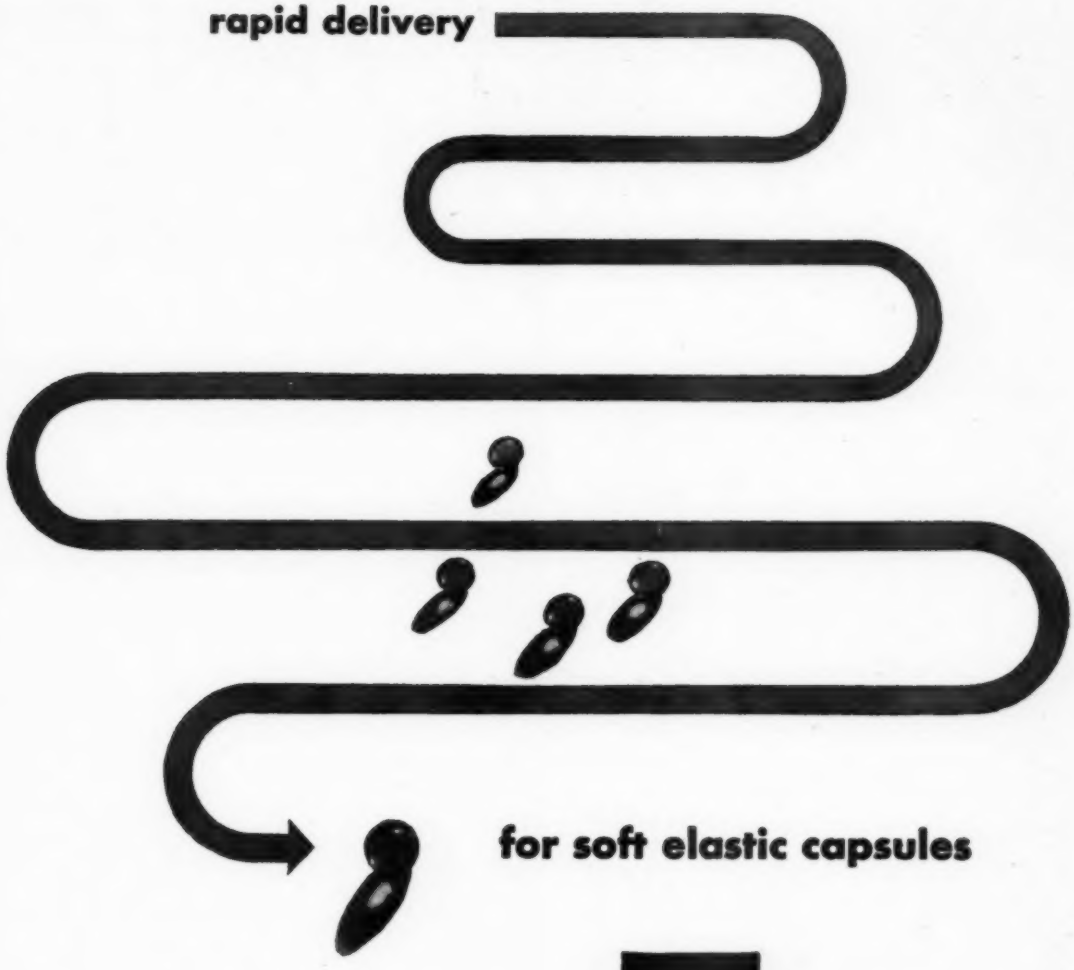

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3 and 4 minim round capsules

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SOFT ELASTIC CAPSULES — various sizes and types — are streaming forth from Strong Cobb capsulating machines. • We are manufacturing large quantities of 3 and 4 minim round capsules and 3, 5 and 7½ minim ovals. *Other sizes and shapes will be added as the demand arises.* • Our new machines assure a *positive fill*. They are producing both clear and opaque capsules in many colors. Piston-type fillers measure accurately the individual dosage. • THE CAPSULE DIVISION operates under the same rigid laboratory and plant control as all divisions in our organization. Up-to-the-minute research laboratories are running continuous studies on the improvement of formulae and capsulating methods. • If you are considering immediate or future capsule manufacture write for samples of our fine products.

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Adoxine will impart sparkle and brilliance to ...st any blend, adding a touch of charm and ...inction without changing its general character... ...cs. *Iso Cyclo Citral-S* imparts a genuine lush ...en note. Its clean, refreshing odor makes it the ...fect masking agent. *C-66* lends an appealing ...ness wherever Lily-of-the-Valley is an impor-tant constituent. Its Muguet character is considerably more intensive than Hydroxy Citronellal, and produces very interesting effects. ◇ These three new specialties enhance the finest perfumes, yet are well within reach of the soap perfumer. ◇ A request on your company letterhead will bring working samples and complete information.

50th Anniversary 1897-1947

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QUALITY LANOLIN for BETTER CREAMS and OINTMENTS

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ROWAG AA is free from impurities and has a consistently high cholesterol content (15% to 16%). It is an exceptionally effective skin softening agent and emolient and has clear color and clean odor. As a powerful emulsifier and emulsion stabilizer ROWAG AA is unsurpassed.

Write for full details and learn why ROWAG AA Lanolin is the preferred Lanolin of many of America's leading cosmetic manufacturers.

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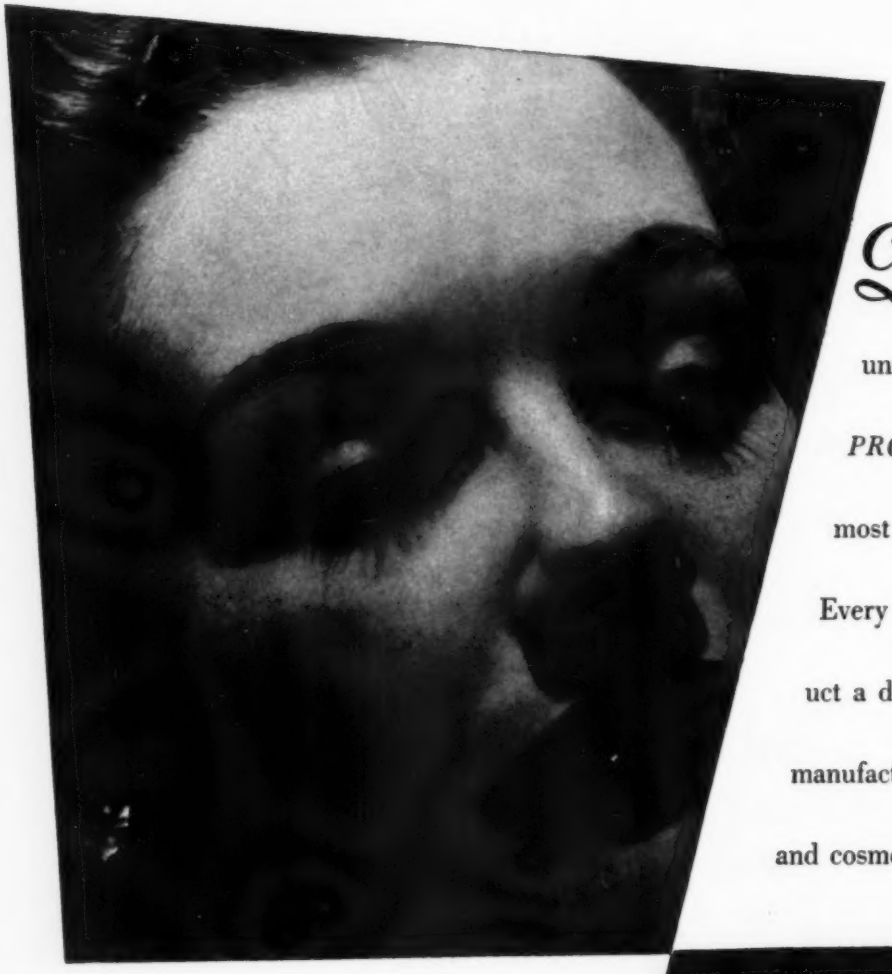

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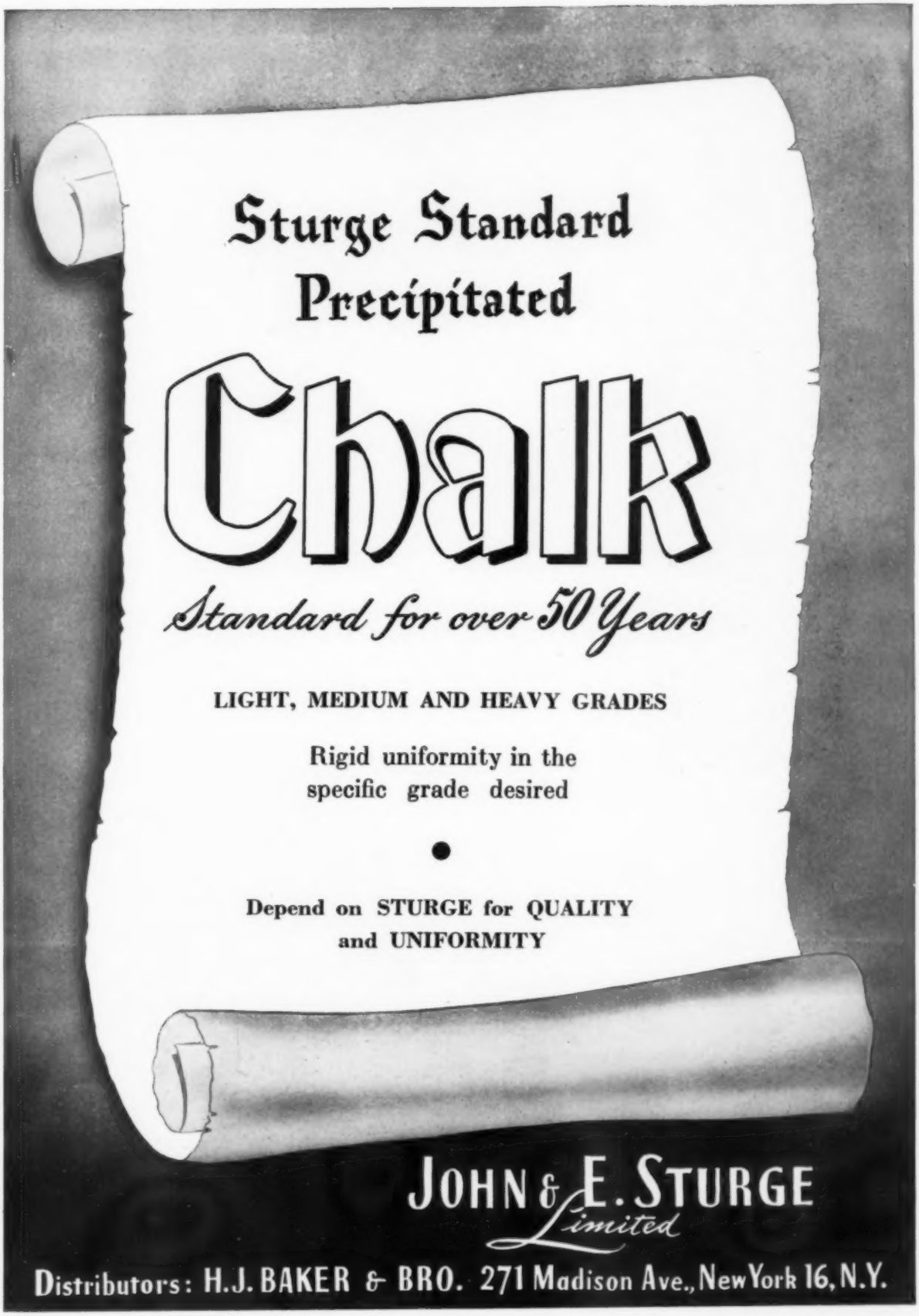
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Heyden Salicylates are produced under the most rigid controls. Long recognized for their quality, purity, and uniformity, Heyden Salicylates are laboratory tested to assure suitability for prescription and commercial manufacturing uses.

Specify Heyden Salicylates for

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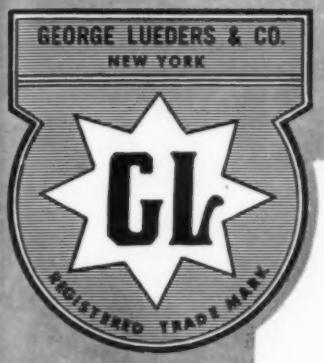

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PROPERTIES

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Assay:	ZnO_2 by wt. min. 55%
Stability:	No loss of active oxygen at room temperature. Decomposes above 150°C.
Solubility:	Insoluble in water, soluble in acid media.

OTHER USES

Cosmetics:	Dusting Powders. Deodorants.
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General:	High temperature oxidations.

OTHER BECCO PRODUCTS

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Hydrogen Peroxide	90% by weight		

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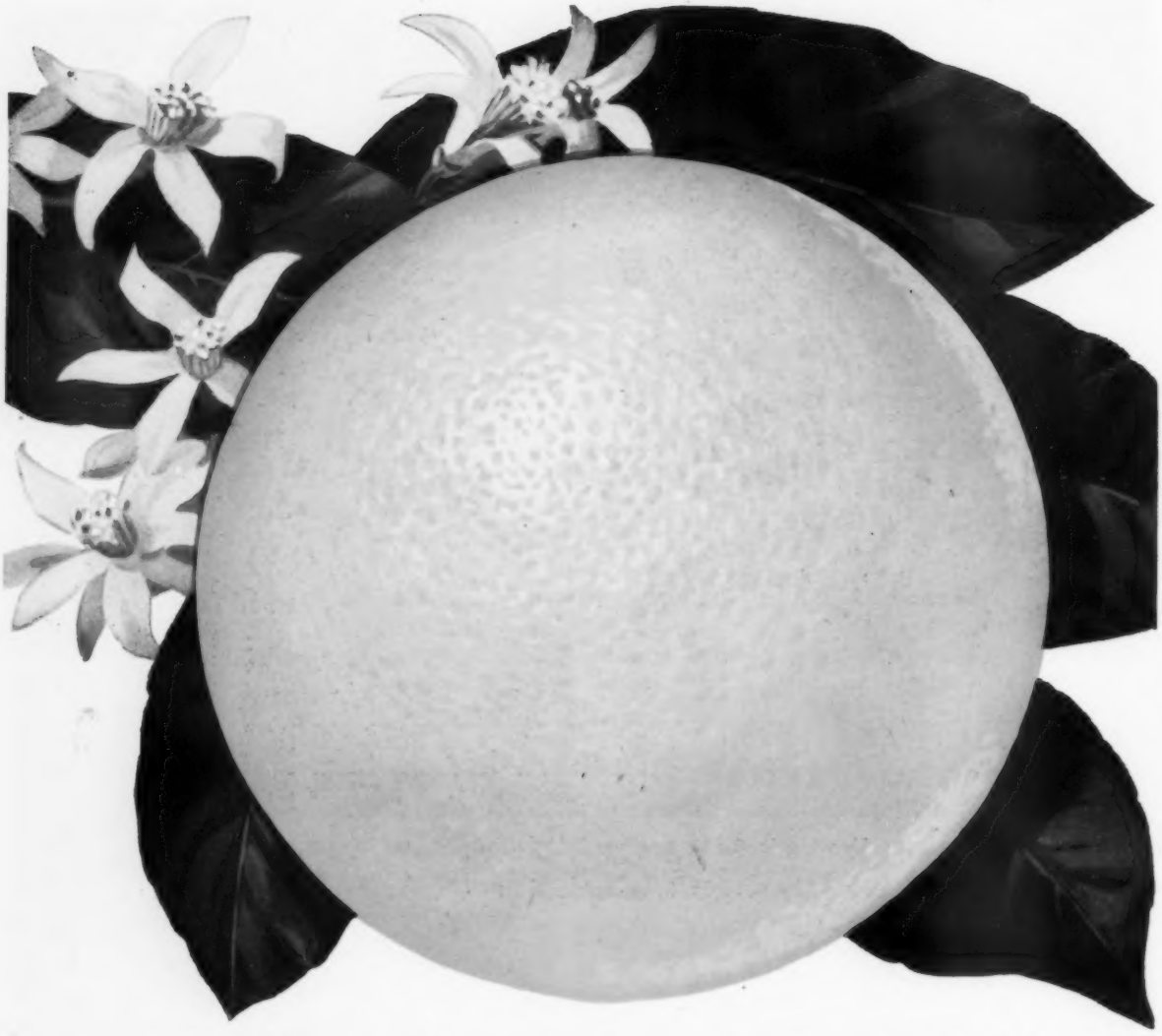

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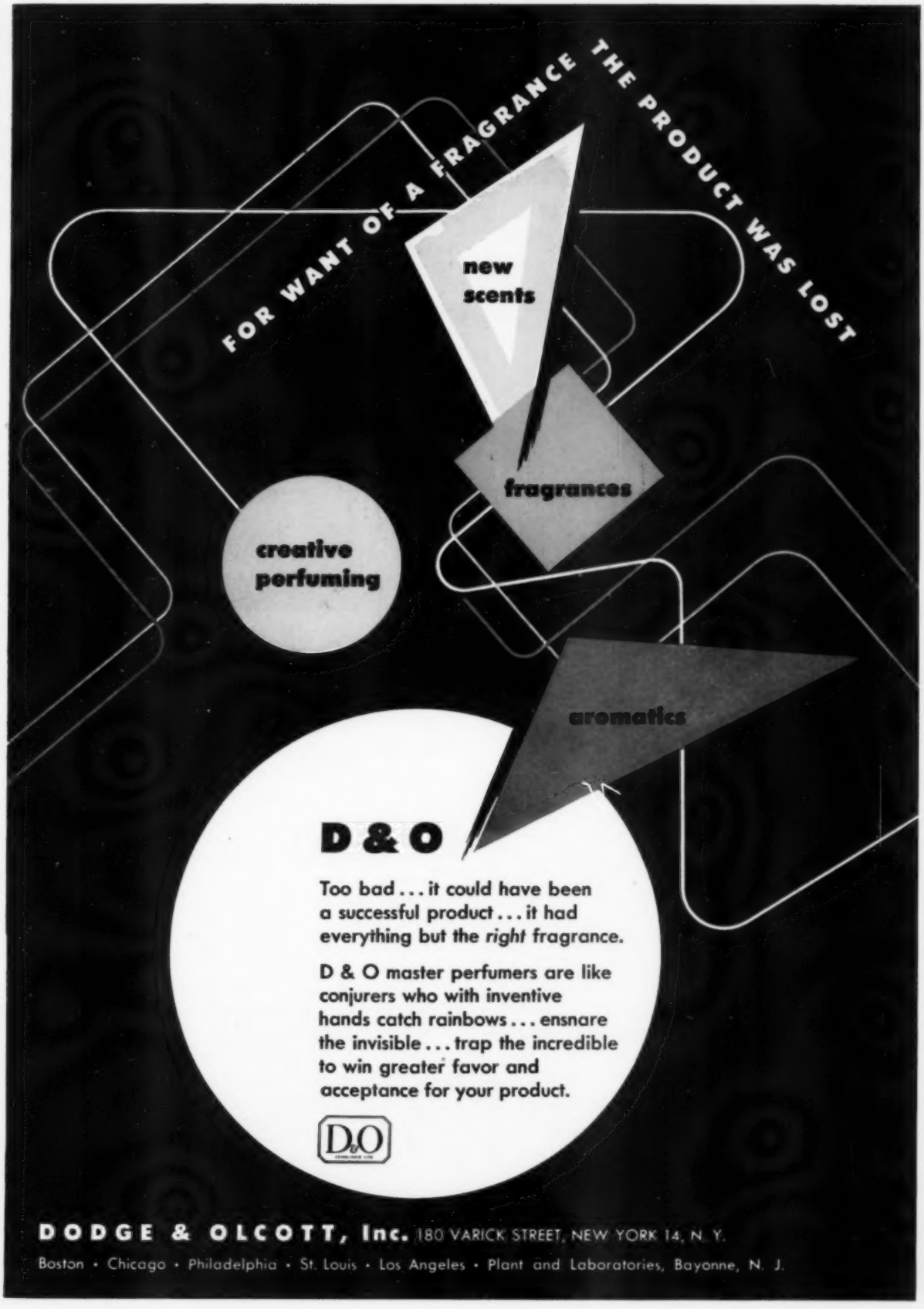
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The Sultan's Medical Monopoly

Earth from the Isle of Lemnos was deemed specific for many ailments from the time of Herodotus to the beginning of the last century. It is a greasy, gritless clay consisting of oxide of *aluminum*, silica, chalk and magnesia. Lemnian earth was held in high esteem as an antidote for all poisons, and was given for dysenteries, internal ulcers, hemorrhages, and pestilential fevers. Externally it was applied to festering wounds.

For centuries Lemnian earth was the monopoly of the Sultan of Turkey, and the penalty of death was attached to opening the source pit by unauthorized persons.

Until recently the earth was dug with great ceremony on only one day each year. The pit, which was kept closed during the remainder of the year, was opened with solemn rites by the priests on the sixth day of August, six hours after sunrise. The earth was washed, dried, and then molded into blocks and imprinted with a seal. It was then sent to Constantinople for distribution.

Not until the advent of modern science has it been possible to obtain aluminum compounds—ingredients of Lemnian and other earths—in commercial quantities and of uniform dependable purity. Today Mallinckrodt aluminum compounds bear the trademark of a firm which has been manufacturing fine chemicals for eighty years.

For aluminum products of uniformity, purity and dependability specify **Mallinckrodt Aluminum Acetate, Chloride, Citrate, Hydroxide, Stearate, Sulfate, Alums and other compounds.**

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" Oh, you'd like Jane! Wonderful physical properties, never boils over, but reaches the melting point very often! "

KEEPING POSTED

The F.T.C. and Increased Power

DESPITE all the talk about the Federal Trade Commission's new attitude toward business as indicated by its plan to hold conferences and get business in step with the laws which the Commission enforces in a nice friendly sort of way, we still stick to our original contention that this plan is primarily a bid for larger appropriations from Congress, more employees in the Commission, and greater power. Some people do not seem to realize that government agencies think along these lines. They do not appreciate the fact that members of these agencies are guided by a craving to become bigger and bigger and therefore more influential in the working of our government. At the recent Toilet Goods Association meeting at which the Fair Trade Practice Conference of the two previous days was discussed, this thought was expressed by one manufacturer. However, he had an additional angle that might be of benefit to cosmetic manufacturers in working out their code of fair trade practices. He expressed the thought that the Commission was anxious to do a job with cosmetic manufacturers that would be satisfactory to the manufacturers, for then it could ask Congress for the rest of the money that it had previously requested, holding up the satisfactory job that it had done in the cosmetic industry as a strong argument. Therefore, we are strongly of the opinion that the cosmetic industry has nothing to lose in standing up and fighting for satisfactory rules of practice at the public hearing which will be conducted in the near future.

We Love To Listen

WE were always a fall-guy for magicians. We love to watch them. We have come to the conclusion that we feel the same way about outstanding speakers—especially Dr. Morris Fishbein. We love to see him go through his act. We don't care particularly what he says, we just love to hear him say it. We roll in the aisles at his jokes, and we applaud lustily when he is finished. We haven't yet had enough of him to tire of his great performance.

Sullivan Case Reversed Against FDA

THE famous Sullivan case has been reversed by the Fifth Circuit Court of Appeals with the decision being handed down in favor of Sullivan and against the Food and Drug Administration. The case involved a retail druggist in Columbus, Georgia named Sullivan. Sullivan purchased from Abbot Laboratories in Atlanta a bottle of sulfathiazole tablets which Abbott had shipped from its North Chicago laboratories to its branch in Atlanta more than six months prior to the purchase by Sullivan. After purchase, Sullivan transferred the tablets intrastate to his pharmacy in Columbus. Nearly three months later he removed from this bottle of 1,000 tablets, two lots of twelve tablets each, placed them in pill boxes and sold them over the counter to FDA inspectors with only the misspelled word sulfathiazole thereon. He was convicted by the District Court for making this sale. The Circuit Court stated that the only interstate commerce involved in this case was the Abbott shipment from North Chicago to Atlanta. The Court also stated that the general purpose of the Food, Drug, and Cosmetic Act, declared in its title, is "to prohibit the movement in interstate commerce of adulterated and misbranded food, drugs, devices, and cosmetics." The Court stated that a construction of this Act to reach the retail sale by Sullivan would bring within its criminal provisions the retail sale of such articles by drug and grocery stores throughout the country.

Nasal Inhaler Prohibition

A BILL to prohibit the sale of nasal inhalers unless the amphesamine is denatured to make it unfit for internal use was passed by the Pennsylvania House of Representatives. When originally introduced, the bill prohibited the sale of any inhaler except on prescription, but it was later amended to exempt denatured inhalers. The bill was specially aimed at Benzedrine because of its reported use as an emotional stimulant.

Small Percentage of Luxury Cosmetics

"ONE disservice which the glamorizing of perfumes has done to the cosmetic industry is that our legislators and many of the public have received the impression that perfumes and necessary toilet articles are luxury items used mostly by queens of the stage, the films, and of fashion and that the advertised prices of $20, $40, and sometimes $60 or $75 for a small bottle of perfume are representative of the sales of the industry as a whole," said Association Counsel Hugo Mock at the recent meeting of the Toilet Goods Association. "Undoubtedly," he continued, there are many such items in the industry but the total sales of items of $20 and over, while they might excite the curiosity of the average reader, are quite inconsiderably matched with the total volume of the industry.

"In fact as the cosmetic industry has grown it has grown distinctly out of the luxury class into the necessity class and I think it is a fair statement to say that so-called luxury items do not represent 5 per cent, and it might be much less of the total volume of the industry. Even the houses which advertise the expensive items find their volume mostly in related products sold at a much lower price but hearing the same trade-marks. It is time that our lawmakers in seeking for sources of revenue made a more factual and scientific approach to the problem without penalizing the average consumer.

"The percentage of women's shoes and hats, for instance, as related to the total of these industries represents a great deal more luxury than the expensive items which might be denominated luxuries in the field of toilet preparations, Mink coats at $10,000 are certainly luxuries, but a mouton coat at $100 is not. Examples might be multiplied indefinitely and this industry should take occasion to remind our lawmakers that cosmetics represented by at least 95 per cent of the volume of the industry are not luxuries at all."

That Lanham Trade-Mark Law

IF ALL this talk about the new Trade-Mark (Lanham) Act makes you just a little dizzy, why not try a condensed version. In this issue, John Graham has done what we consider a swell job of breaking down the main features of the Act to a few questions-and-answers level. You will find this in the Trade-Mark Record department which he conducts regularly (this month it appears on page 824), and we think it is important enough to suggest that you make it a "must" on your reading list.

Glass Bottle Machinery Settlement

A SEVEN-YEAR-OLD suit involving glass making machinery and machinery patents was settled late last month by U. S. Attorney General Tom C. Clark with the entry of an order by Judge Kloeb of the Federal District Court, Toledo, O. Companies involved in the litigation were: Hartford-Empire Company, Hartford, Conn.; Hazel-Atlas Glass Company, Wheeling, W. Va.; Ball Brothers Company, Muncie, Ind.; and Lynch Corporation, Anderson, Ind. Principal features of the settlement are:

1. Hartford will change its distribution system and sell outright its current lines of glass making machinery to container manufacturers, at the latter's request, instead of leasing the machines.

2. Container manufacturers will now be able to make their own glass making machinery, or have it made for them by manufacturers of their own choice.

3. Glass making machinery manufacturers will benefit from a substantial reduction in royalty payments to Hartford. For example, the maximum rates for feeder machines are initially a third of the amount requested by Hartford, and are thereafter to be reduced. The settlement, while fixing maximum rates to be charged for patents, leaves in effect provisions of the final judgment authorizing further proceedings before the court if the royalties charged are excessive or if the patent position of Hartford deteriorates.

A further provision requires Hartford-Empire Company to dedicate to the public, as of October 31, 1950, three of its basic patents covering glass feeders, which are essential machines in the manufacture of glass containers. Immediate cancellation of these patents, on the separate ground of fraud in their procurement, is being pressed for by the government in a suit pending in the Federal District Court of Wilmington, Del.

Separate settlement agreements also have been entered into with Hazel-Atlas, Ball Brothers, and Lynch Corporation, under which glass making machine patents have been made available to the public at royalty rates designed to encourage their use. Owens-Illinois Glass Company, Toledo, had agreed previously to license its glass making machine patents for the nominal single royalty of $1, and a similar settlement has now been made with Ball Brothers.

FDA After Pitch Men

THE Food and Drug Administration is becoming quite active with regard to pitchmen who offer for sale all sorts of medicines and dietary foods. These pitchmen, in selling their wares, are very critical of many of the widely known products on the market.

Bristol-Myers Gives To McGill

A GRANT-IN-AID to McGill University, Canada, by Bristol-Myers Company is announced by William M. Bristol Jr., executive vice-president of the company. This will enable McGill to establish a Research Institute of Bio-Physics within the Department of Medicine of the McGill University Medical School and the establishment of fellowships therein. The Research Institute will be under the directorship of Dr. K. A. Evelyn, Ph.D., M.D.

Parke Davis Wage Increase

PARKE Davis & Company announced late last month a straight 15 cents per hour increase for 2,800 employees in Detroit and Rochester, Mich. Edward M. Dooley, director of industrial relations for the company, said Local 176, UCW-CIO, agreed to a new contract to run until May 1, 1948, replacing a wage contract which expired last May 1, and a non-economic agreement which was to run to September 1, 1947. He described the increase as putting wages "within range" of others in the industry, but said it was impossible inmediately to strike a wage average for all the employees.

No More Sugar for Pharmaceuticals

THE Administrator of Sugar Rationing, early this month, denied an industry appeal for a twenty percent increase in sugar allocations to drug manufacturers. In a letter to the American Drug Manufacturers' Association, Administrator Irving Rice denied the petition of the ADMA on the grounds that the pharmaceutical industry is already receiving preferential treatment in sugar allotments, and that the Government has not found a shortage of sugar-containing medicinals to exist today. Mr. Rice said that the latter information was supplied to him by the Food and Drug Administration and the National Research Council. The pharmaceutical manufacturers are now receiving 120 per cent of its 1941 sugar consumption, but asked for 150 per cent for the current quarter of the year. Other industries received a 20 per cent increase but are still operating below their 1941 use.

Some of the arguments given in the petition are:

1. Use of sugar in a number of pharmaceutical preparations is required by law and substitutes, even if available, may not be used in most instances. Both the U. S. P. and N. F. require that sugar be used as a vehicle, solvent, dispersing agent, preservative, or demulcent in such liquid preparations as cough syrups, as a bonding agent and coating in tablets.

2. Present allocation of sugar for pharmaceuticals for the second quarter of this year is 8,168 tons, raw value, about one per cent of the aggregate allocation to all industrial users and about one-half of one per cent of the second quarter allocation of about 1,520,000 tons to consumers, institutional and industrial users. Therefore, an increase to slightly over 10,000 tons, the quantity arrived at on the basis of the survey of ADMA members needs, is but a drop in the bucket in the entire supply picture.

3. Sugar is piling up at the refiners' level to such an extent that it is glutting the market at least during the current quarter. No one knows precisely just how short of demand sugar will be this year, and current Government estimates of the overall shortage may be considerably exaggerated.

Petroleum and Chemicals

PETROLEUM chemistry will eventually relieve many of the shortages of basic chemicals and will stabilize prices of alcohol, benzol, phthalic anhydride, glycerine, and other raw materials, according to Jan Osstermeyer, president of Shell Chemical Corporation. As the result of greatly increased production of ethyl alcohol from petroleum, he said, we shall see prices decline from about $1 per gallon to a firm level of between 30 and 40 cents within the next year or two. The tight ethyl alcohol situation is also being relieved in other ways by other alcohols derived from petroleum and natural gas. Synthetic methyl alcohol will soon be in plentiful supply at a reasonable price, he said, and is expected to replace ethyl alcohol permanently in such uses as antifreeze. Isopropyl alcohol, produced entirely from refinery gases, and selling at a stable price range of 30 to 40 cents per gallon, has been replacing ethyl alcohol in many uses such as lacquer solvents and rubbing alcohol. Normal propyl alcohol has appeared on the ax market at an attractive price, he said, and will also capture markets which ethyl alcohol will have to come down in price to regain.

The development of synthetic glycerine, said Mr. Osstermeyer, was held up for ten years because the capital risk was too great until some of biggest buyers of glycerine—men who would be in the strongest position to ride the by-product price down when the time came—elected instead to take the enlightened long-range view and shoulder some of the supplier's unwarranted burden of risk by signing long-term contracts at a fair price. Said Mr. Osstermeyer:

"Had we the vision and foresight to get together and do this sort of thing years ago there need have been no waste fats drive during the war." The $7,000,000 synthetic glycerine plant which will help to make glycerine independent of soap production, is now going up in Texas but will not be ready until the spring of 1948, he said.

Some Grog!

THE director general of the Government distillery at Bangkok, Siam, angrily denying charges that his whiskey had fatally poisoned several persons recently, said proudly: "We never allow whiskey to leave our distillery until it has aged at least twenty-eight hours." His best brand, Mekong, which retails at the equivalent of 72 cents a quart, is popular with natives and foreigners alike, it is reported. We in this country should cease to complain about some of the whiskey which we think is not to our liking.

U. S. P. Plans

ALTHOUGH U. S. P. XIII was only published a little over a month ago, plans are being made looking toward publication of U. S. P. XIV before the close of the present decade. The U. S. P. Board of Trustees explains this effort as follows: "This will bring about the hoped for clarification of the publication program as it has been planned since the five-year revision period was visualized. By this arrangement, the new Revision Committee which will be elected in 1950 will have the first five years of the decade to complete their initial revision of the U. S. P. and another full five years for the second revision, thus establishing the five-year system on a firm and logical foundation." This means that the druggists and others who must have a copy of this compendium on hand will be required to purchase another one three years from now.

U. S. P. XII outsold its predecessor, U. S. P. XI. U. S. P. XII sales during its life period from September 1942 to April 1947 totaled 58,684 copies. For the same period of time only 53,202 copies of U. S. P. XI were sold, and a total of 57,449 copies were sold for its entire life span from December 1935 to August 1942. The Board of Trustees of the U. S. P. has approved a plan whereby copies of U. S. P. Sheet Supplements, so printed and arranged as to permit insertion in the U. S. P., will be made available to the secretary of each State Board of Pharmacy for presentation to every registered pharmacy in the respective state.

Squibb in Argentine

LATE last month word came from Buenos Aires that E. R. Squibb & Sons, the Argentine affiliate of the domestic concern, had been given a three-year monopoly for the manufacture and sale of penicillin in that country. The dispatch said that the penicillin will be made in one unit of a new $4,000,000 pharmaceutical plant for which ground is being broken in Martinez, a suburb of Buenos Aires. Under the project, according to the dispatch, which is a part of President Juan D. Peron's five-year industrial expansion plan, the Squibb Company must have the penicillin plant completed by August 25, 1948 and, meanwhile, companies now importing penicillin may continue to do so. After that further importation of penicillin will be prohibited for a period not to exceed three years. The company has been organized with the inclusion of Argentine private capital.

With reference to this news dispatch, Squibb Board Chairman Carleton H. Palmer stated: "Three years ago, the House of Squibb purchased a sizeable tract of land in the suburbs of Buenos Aires, looking toward utilizing it for the erection of modern manufacturing laboratories for various Squibb products when we had developed our business in and knowledge of Argentina sufficiently to justify their construction. Naturally, we have had in mind including a laboratory for the manufacture of penicillin and other anti-biotic products. Our plans and experience as a pioneer in the field of anti-biotics appear to coincide with the current desires and needs of the Argentine nation, with respect to both public health and the establishment of industrial enterprises privately owned, financed and operated . . . In making our plans, we have not been unmindful that prior to the war, German companies dominated the sale and distribution of drugs in most Latin American countries, and often misused their position of influence to spread Nazi and anti-United States propaganda . . . The so-called laboratories maintained by the German owned companies were utilized chiefly to re-package or perform minor finishing operations to drugs, and essential formulae and scientific know-how were retained largely in Germany. No serious effort was made by the Germans to establish in their Latin American laboratories basic manufacturing processes or to educate Argentine scientists in basic manufacturing and research techniques, or to pass on their know-how to Argentine technicians.

"Contrary to those policies, we believe that United States companies in numerous field of industry can and many already are exerting a useful, constructive influence in the development of national industries in various Latin American countries. We believe that this influence is contributing and will contribute in increasing measure to a happy and lasting understanding between the United States and our neighbors south of the Rio Grande, and that it constitutes a worthwhile factor in consolidating sound relationships among the countries of the Western Hemisphere. So it is that our Argentine affiliate has undertaken by agreement with the Argentine government to establish a penicillin plant and to assist in the education and training of Argentine citizens in technical and scientific pursuits. They will constitute the overwhelming majority of the staff employed in our Argentine laboratories. As an integral part of this undertaking, our Argentine affiliate has been pleased to accept subscriptions to its capital stock, thus enabling other Argentine citizens, including employees of our affiliate, to participate in financing the construction and equipment of these laboratories including that for the manufacture of penicillin and to enjoy its fruits.

"We have not singled out Argentina. With others of our officers and directors, I have just returned recently from Mexico City where our Mexican affiliate, E. R. Squibb & Sons de Mexico, has formally opened its manufacturing laboratories, including a laboratory for the manufacture of penicillin, the construction of which began three years ago, as well as from Havana, where a smaller manufacturing laboratory (not including the manufacture of penicillin) has just been completed. We are in course of completing the installation of manufacturing equipment in a laboratory established by us in Sao Paulo, Brazil. It is our intention to follow this policy within the confines of sound and humanitarian expansion of our business throughout the world . . . While our motives are necessarily not devoid of commercial aura, we have endeavored and shall continue to endeavor to combine them with a sincere intention and determination to promote the good neighbor policy. This, we believe, includes assistance in elevating standards of public health in those countries, as well as in our own country, with particular reference to the manufacture, sale and use, under adequate safeguards, of drug products designed to prevent, alleviate or remedy diseases."

Monsanto Academic Awards

MONSANTO Chemical Company has awarded to three industrial scientists leaves of absence at full salary for an academic year to study at universities of their choice. The announcement of the awards, which embrace the school year 1947-1948, was the second step in an annual Monsanto program which will enable a group of scientists to renew their studies and to establish close cooperation between industry and university laboratories.

Pharmaceuticals and Profits

DR. CARLE M. BIGELOW, director of the Calco pharmaceutical department, stated before the recent meeting of the American Pharmaceutical Manufacturers' Association "That there is nothing immoral in making an adequate profit, particularly in our industry. The future well-being of our country and the world depends upon it; and in setting up your plans for profits, and your pricing policies, don't set your sights too low!"

In leading up to this conclusion, Dr. Bigelow said: "Do you realize in 1946 one large house made 35.3 per cent, and another 33.2 per cent of the sales dollar as operating profit before taxes? It is my honest opinion that any concern which does not earn a mean of at least 20 per cent of the sales dollar as an operating profit should study its operating methods and costs, and price structure very carefully. In my opinion, such a ratio of profit is absolutely essential, if you are to maintain the proper growth which is necessary in our industry.

"Not for a moment do I want you to think that I fail to understand the basic principle of our industrial system in this country, which is to constantly

decrease costs and make products available at lower prices. In our particular industry, however, a too rapid reduction in price results in a failure to provide the basic fixed expense which companies must maintain if they are to perform the proper scientific task of developing and distributing an ever-increasing amount of improved medicaments. Unfortunately, there is a tendency on the part of some houses to forget economics and retaliate against price-cutting, with the result that an important drug may well be sold below its true cost.

"Just at present, this situation is rampant, due to the unwise policies of the War Assets Administration, which has thrown onto the market large quantities of important specialties, at ridiculous prices, while at the same time governmental agencies are buying further supplies at market prices! Great tolerance and patience is required by sales managements at present if they are not to ruin their price structures in large sections of the market."

The Government and Expense Accounts

WE NOTE that the Department of Commerce has asked Congress for permission to pick up a dinner tab now and then when foreign visitors are in town. The Department is asking Congress for a bill allowing the Secretary of Commerce to reimburse employees "for expense of entertaining representatives of other countries." The Department complains that as things now stand, the entertainer has to have prior approval of all expenses, or he has to turn in a receipt showing how much he spent and for what. This, says the Department, "makes it impossible to entertain with the requisite flexibility, for it is not customary for hotels to furnish receipts for meals." We wonder just how the Treasury Department would feel about such a bill when they are trying to insist that ordinary business people furnish receipts for all expenses down to the last penny or else they will disallow a very considerable part of expenses spent in just the way that the Commerce Department wants authorized by Congress.

Cosmetic Sales

SALES figures of cosmetic houses generally have been difficult to analyze as indicating a trend. One large house showed a falling off of only two per cent which is a natural decline in this period. However, another shows an increase of seventeen per cent, but this might be due to the fact that a new powder was brought out in the first quarter, meaning that sales had been purposely slowed on the old powder last year, and then everyone was stocked with the new powder during the first quarter of this year. However, another manufacturer showed a decline of seventy per cent in sales for the first quarter which cannot be reconciled in any known way. So far as the reaction of consumers toward cosmetics is concerned, one indication comes from a large manufacturer who sells his goods direct to the consumers through agents; sales of this manufacturer for the first quarter were up. Our cosmetic sales chart has shown a slight falling off during the first months of this year, but this is now beginning to reverse itself. Whether or not this reversal is only temporary only time will tell. However, it is generally agreed that disposition of excess inventories, which has been believed to be mainly responsible for the decline in sales by manufacturers of cosmetics, should be completed by early fall at the latest. By that time the flow of goods from manufacturers to distributors and then to consumers should be on a normal basis.

No Depression Says C.E.C.

THE Congressional Economic Committee, headed by Senator Robert A. Taft, said early this month that in a survey of business expectations for 1947, although a majority of those filling out the questionnaire anticipate a "mild recession in business this fall," answers do not give "any real support to the theory that we are nearing a depression, since in our own businesses employers expect an increase in production, sales, and output per man-hour." Questionnaires were sent to business leaders in manufacturing, mining, construction, transportation, finance, and insurance, and the wholesale and retail trades. One of the striking things about the survey, it was said, is that most of those contacted were more encouraged at the prospects of their own businesses than they were for their own industries, and more encouraged for the prospects for their own industries than for other industries.

Is F.T.C. Embarrassed?

WE WERE interested in the remarks of Hugo Mock, general counsel of the Toilet Goods Association, with regard to the Federal Trade Commission and the present state of business in this country. Mr. Mock merely observed that the Commission was originally created to protect small business, and during the many years that the Commission has been in existence, big businesses came into being and continued to thrive. Mr. Mock cited as an instance the great number of automobile manufacturers that were in existence years ago and how the number had dwindled down to somewhere around ten, with three big ones. He indicated that the Commission might feel downright embarrassed by this record. Mr. Mock did not say that the Commission in the time since it was created until the present time, has had an increased number of laws, an increased number of employees, and naturally an increased budget to accomplish what it was originally created for—the protection of small business against unfair tactics on the part of big business. We suppose that the Commission must accomplish some good, but all we hear about the Commission and its activities are loud complaints. And so far as its activities on advertising of drug products are concerned, they have recently been busy in trying to bankrupt small business unless they bend to the will of their medical advisor who attempts to dictate changes in the formulas of products, a power which the Commission does not possess through any of the many laws which Congress has enacted for the Comission to enforce.

More Doctors in Country

THE number of doctors in the country increased by 3,601 in 1946, according to the Journal of the American Association, since 6,959 new doctors were licensed during that year, and 3,358 were removed by death or were temporarily located in foreign countries during that year.

The Trade Practice Conference

The Federal Trade Commission and Cosmetic Manufacturers Face a Difficult Problem in Formulating Rules Governing Fair Trade Practices in the Industry.

THE "Trade Practice Conference for the Cosmetics and Toilet Preparations Industry," called at the Waldorf-Astoria Hotel, New York, May 12 and 13, seemed to indicate that the Federal Trade Commission—which called the Conference—has a particularly hard nut to crack in interpreting the Robinson-Patman Act as it applies to cosmetic and perfume manufacturers. While the Commission ordered the Conference held, it sought the assistance of the industry in arranging the Conference and in formulating proposed rules of fair practice which were offered for discussion. The industry committee which aided the Commission solicited from manufacturers suggested rules to be offered to the Conference. These rules were then drawn up in proper form and mimeographed for the use of those attending the Conference. The total number of subjects covered by the rules was twelve in number. But since there were different forms of many of the rules presented, the total number of rules offered for consideration was twenty-five. Rule I, which covered commercial bribery, was offered in only one form. Rule II, which covered deception (general), was offered in two variations. Rule III, which covered fictitious prices, was also offered in two forms. Rule IV, covering defamation of competitors or disparagement of their products, was offered in one form. Rules V, VI, and VII, applying respectively to deceptive marking of products; deceptive imitation of trade-marks, trade names, etc.; and deceptive imitation of competitors' products, also were offered in single forms. Rule VIII, applying to misrepresentation as to place of manufacture, was offered in two forms. Rules IX and X, applying respectively to procurement of competitors' confidential information by unfair means and wrongful use thereof, and inducing breach of contract, were offered in single forms. Rule XI, the most controversial rule of all covering prohibited advertising and promotional allowances, was offered in eleven forms. And Rule XII, covering return of merchandise, was offered in a single form.

The Conference was conducted by FTC Director Henry Miller, with FTC Commissioner Freer sitting and listening throughout the entire sessions. No opinions were given and no questions were answered by anyone connected with the Commission as to the propriety of any of the suggested rules. Anyone who asked any such question was told that all statements contained in the transcript of the Conference would be considered by the Commission. They were told that after all of the material was considered, another conference would be held at which a set of rules drafted by the Commission would be discussed.

Generally speaking, members of the industry—whether or not employing demonstrators, P.M.s, cooperative advertising, or other cooperative promotional schemes, were in agreement that these methods of merchandising were not unfair to anybody concerned and were extremely important to the smaller manufacturers coming into the field in their attempts to compete with the large well-intrenched companies. Manufacturers clearly indicated why the use of demonstrators, the purchase of window displays, cooperative advertising allowances could not, as a sound merchandising policy, be extended to every store of any type which handled the goods of the manufacturers employing any or all of these merchandising plans. One speaker pointed out that the Fifth Avenue stores not only influenced the consumers who visited these stores, but also influenced buyers from out-of-town department stores who visited the Fifth Avenue stores to see what lines they were featuring. The same thing goes for window displays and cooperative advertising in the opinion of some speakers. One speaker said that he would gladly buy five windows for display in Bonwit-Teller, but he would not pay any price for twenty windows in some other stores.

Several speakers expressed the thought that the manufacturers should be able to select the stores whose cooperation they wanted to buy by means of the purchase of various types of services, since the purchase of

these services was only made with the idea in view of building the total volume of the manufacturer's products in all stores. It was the contention of many that all retailers selling the goods of such a manufacturer benefited by the cooperation bought from and delivered by the stores which successful manufacturers selected to furnish these services. One manufacturer pointed out that manufacturers, in giving various types of allowances to certain stores for the purchase of services rendered by the store, were buying the brains of the store personnel. It was inferred that the personnel in all stores is not of the same value to a certain manufacturer in the promotion of his goods and that the manufacturer has the right to purchase the proper brains where he finds them.

A paragraph covering this phase of the rules, which paragraph received considerable approval by the speakers at the Conference, reads as follows:

"A member of the industry may purchase promotional services and facilities from any customer retailer in any trading area, provided that he offers to purchase the same services and facilities from all of his customer retailers equipped to furnish such services and facilities in such trading area on a proportionalized basis. Such purchase of services and facilities may be proportionalized on any just and equitable basis, such as, but not limited to, the member's net sales to each customer retailer, the total sales volume of industry products of each customer retailer, the volume of consumer traffic in or passing the establishment of each customer retailer, the number of charge accounts of each customer retailer, the geographical location of the establishment of each customer retailer, or any combination of these or other measurable factors by which such services and facilities can be justly and fairly evaluated."

Many speakers expressed the opinion that if the basis upon which various manufacturers bought these services and facilities were openly published, ninety per cent of the complaints regarding these merchandising methods employed by manufacturers would immediately disappear.

Many speakers stated that they were more confused than ever as a result of rules offered and the discussion given of them. But many held the view privately that the Commission was equally confused. It was brought out strongly that the Commission has before it seven complaints issued by it shortly after the Robinson-Patman Act was enacted eleven years ago, and thus far the Commission has been unable to arrive at a decision. In other words, the Commission has been unable to determine how to enforce the Robinson-Patman Act with respect to the cosmetic manufacturers and, although they have taken a wealth of testimony concerning the industry during these eleven years, they had hopes that the Conference might solve the problem for them.

The set of rules that will be offered to the industry at the next conference will be drafted by the Commission with the aid of their legal advisors. These rules, therefore, should express the Commission's opinion of how the Robinson-Patman Act should be enforced with respect to the cosmetic manufacturers. If these rules are of such a nature that they are likely to produce disastrous effects in the industry, then the remedy is the revision of the Robinson-Patman Act by Congress. The Commission is empowered and directed to enforce the law as it interprets it. Appeals to the U. S. Circuit and Supreme Courts are possible in individual cases, but final action to relieve a distressed condition in the industry caused by the law is up to Congress.

There is no question but that the industry spread upon the record of the Conference the reasons why the methods employed for the promotion of business through the purchase of services and facilities of selected retailers are vital to the welfare of the industry. Also the record of the Conference is replete with sound arguments why these methods do not constitute unfair practices and do not harm, but rather benefit, those retailers from whom the services and facilities are not purchased.

The matter of the large manufacturers "hogging" the demonstrators in large stores by having three, four, or five demonstrators for one manufacturer in one store was brought out. This was answered by another manufacturer who indicated that if a store doing $10,000 worth of business with a certain manufacturer was entitled to one demonstrator, then a store doing $50,000 worth of business with the same manufacturer was entitled to five demonstrators. Also the point was made that if manufacturers were willing to give to those stores from whom they do not buy services and facilities an additional discount on their purchases, this would be acceptable to the Commission, but the manufacturers did not see any justification for taking such a step since it in no way benefited them in the building up of their business.

All that the industry can now do is wait until the Commission drafts proposed rules and calls a public hearing at which arguments for and against the rules can be presented. Following this hearing the Commission will finally promulgate a set of rules to apply to the industry. As to the length of time that this will take, some indication can be had from the length of time consumed in finally promulgating rules for the Household Fabric Dye Industry. This industry was the first to be taken up under this new plan of the Commission. The Fair Trade Practice Conference for that industry was held in November, 1946. Public hearings on a set of rules proposed by the Commission were held February 13, 20, and 27, 1947. The rules were finally promulgated May 29, 1947. Incidentally, it would be of interest to manufacturers of cosmetics to obtain a copy of these and read them. Particularly interesting is rule 10 which relates to improper use of demonstrators and payment of spiffs, push money, etc., and rule 12, which relates to advertising or promotional allowances.

OBTAINING YOUR OV

EWING GALLOWAY

THE surprising thing about sales statistics is that there is such a full and excellent variety of them. Nearly all are easily available. Nearly all are free or moderately priced.

Yet we often hear of manufacturers paying absurd prices or fees for reports which are window-dressed from this material.

Printers' Ink recently cited an amusing case. A subscriber purchased a special report, for twelve dollars, on how to determine an advertising appropriation. The report turned out to be photostats of several articles from advertising magazines, including *Printers' Ink*. These reports, plus much other material, were included in a book on this subject currently being advertised for $2.00.

We know a manufacturer in this industry who has a book of which he is very proud. This handsome, leather covered, loose-leaf book cost him several thousand dollars. There are marginal tabs for states so that he can quickly find any county in the whole United States. All sorts of fascinating things are given for each county, such as bank deposits, number of drug stores, income payments, etc., also a sales quota for his products and an index of the most prosperous counties.

The actual cost of this material, conveniently assembled, should not exceed $25.00. Quotas take a little arithmetic.

The purpose of this article is not to supply a complete source of sales statistics, but to indicate some of those easily available, free or at moderate cost.

Suppose you want to make a detailed study of the country, county and cities or towns. This may be to plan expanding distribution; help develop sales quotas or plan advertising; check community sales; make a detailed study of your distribution and store or wholesale sales, in relation to community wealth.

You can wallow in a wealth of detailed, accurate figures here. Start with the material the Bureau of Census, U. S. Dept. of Commerce* will send you for a few dollars. Very complete county data is conveniently assembled in "County Basic Data" published by the Market Research Dept., *Farm Journal*, a paperbound book for each state, each state sold separately, all for $25.00.

If you want a great deal of useful information about worthwhile cities and towns, get from *Editor & Publisher* their Market Guide, Daily Newspaper Centers.

*See for other sources: Government Statistics for Business, Published by John Wiley & Sons, Inc.

OWN SALES STATISTICS

Both *Sales Management* and *Printers' Ink* have published county sales data. They have appraised for you the relative wealth of counties. If you want still more, tell your advertising agency. Newspapers, farm magazines, and national magazines have prepared a flood of books and studies on this subject. All have eye appeal; all go back to the same primary source. But if you get a kick out of knowing the number of autos, telephones, radios by counties; bank deposits, income taxes paid; total income (farm and wages) etc., go to it. It is all there. But don't pay too much.

Now, using your own sales records, check against relative wealth of counties or towns, and against the number of the kind of stores you sell in these communities and it is simple arithimetic to get theoretical sales quotas or potentials.

Of course, if your company has national distribution and a long record of national community sales, you will check general economic factors to estimate changes in an already established history of territory quotas. Economic forecasts bring you into deep water. Some manufacturers pay several thousand dollars to have a report all their own; others take a good investment service at about $75.00; some just ask their bank; some take the trouble to follow the data all use, which you will find in such places as *Wall Street Journal*, *Business Week*, etc.

But if you don't insist on forecasts, but just want to keep up with the procession, there is excellent data with little over a month lag, for free. For instance:

1. Monthly Retail Trade Reports by the Department of Commerce. This gives percentage change in sales in various kinds of retail stores in most major cities, many counties. Department stores and drug stores are listed.

2. Federal Reserve Bank. These reports, for each Federal Reserve District, give percentage sales changes for department stores, for drug and toiletries department. Also give inventory changes for store and department.

3. As an over-all, for cosmetics, use excise tax reports from the treasury. But use this with discretion. Not all cosmetics are taxable, many factors affect this figure. Use it as a percentage change indicator.

Some manufacturers like to know about retail costs and operations, both as a study of their customers and as sales ammunition. As a matter of fact, if more manufacturers knew more about their own product from a retail viewpoint, there would be more and better selling.

Retail and wholesale associations are beginning to get more factual information and making it available. The Controllers' Congress Annual Report and other data from the National Retail Dry Goods Association is one valuable source. The recent report of N.A.R.D. and Curtis Publishing is another. The Harvard University, Graduate School of Business Administration publishes studies of department stores and chain store operational costs.

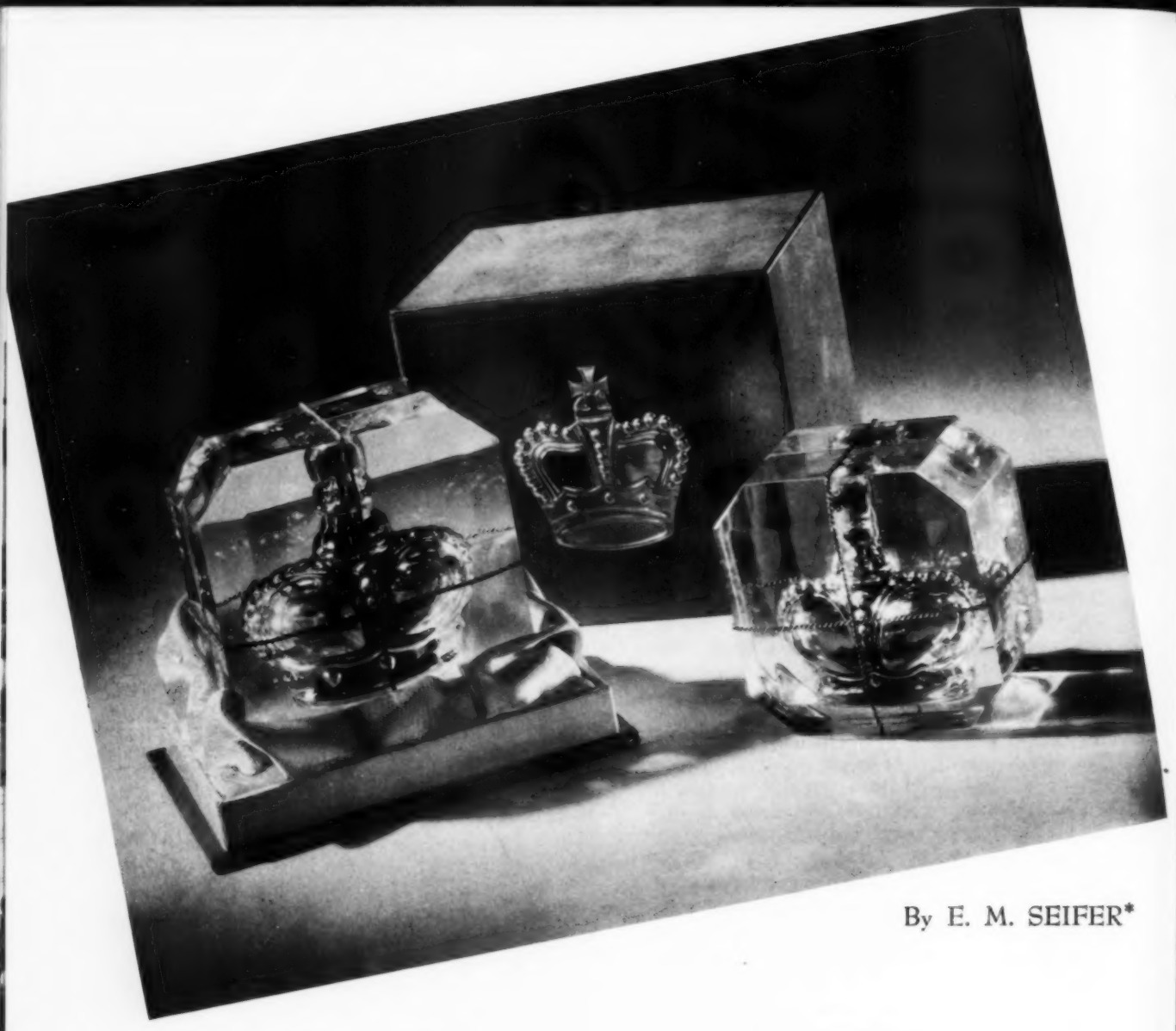
Much more of this kind of material is needed, because some day manufacturers are going to sell on the basis of retail operational costs. They will know much more about their own products in terms of retail vocabulary and on the basis of case histories and actual retail performance. Salesmen will be selling tested model stocks, based on local market factors; they will have a tested turnover factor; demonstrated sales per square foot; what transactions per sales person should be, and so forth, and they will know what the store should expect.

There are services to indicate current competitive position and there are many surveys by consumer magazines, some to analyze their market, some their circulation. Your advertising agency can give you these plus an appraisal of the value of any one. Some newspapers, like the *Milwaukee Journal* in the continuing consumer study of Milwaukee, have adopted scientific market methods which make these analyses of superior value, both as to local market conditions and for urban shopping and consuming habits.

If you use enough of them, checking newspaper urban markets against farm paper rural markets, and checking magazines according to the known character of their circulation, you can get some valuable material.

It takes time and interest in the subject to establish sources of statistical material that may become routine but may also give a manufacturer the feeling that he is charting his course, not drifting. He has full elasticity in the use of this material. He may organize a statistical department, if size of business warrants it. Or establish a routine for one girl, under his direction, or simply read high spot material and draw his own conclusions as he goes along.

In the latter case, he will find much of this done for him in the business journals of his own trade, and the general business and advertising publications. Three or four of these publications are not a very heavy investment in time each month—they are surprisingly good dividend payers for the men who are interested in this subject and alert in planning their business.



By E. M. SEIFER*

The Development of the Crown Jewel Package

THE setting for a jewel is almost as important as the jewel itself! So thought we at Prince Matchabelli when we set out to find a package that would be worthy of the newest member of the royal family of fragrances . . . Crown Jewel . . . Our goal was high and little did we know of the many months of work, of trial and error, that lay ahead of us before achievement was to be realized. But the final result more than made up for all of that for Crown Jewel Perfume, true to name and fragrance, was presented for public approval in the famous gold-encrusted crown bottle suspended in a faceted, gem-like, crystal-clear setting.

Gratifying to us was such editorial approval as, "... the odor has all the magnificence and brilliance of a gem and the package is dazzling—golden crown

*Head of Purchasing Department, Prince Matchabelli Inc.

bottle imprisoned in a jewel-like, crystal-cut block of solid Lucite." And even more gratifying was its earning for Prince Matchabelli of the two most coveted Packaging Awards—the BEAUTY FASHION Award of 1946 and the Charles S. Welch Memorial Award of 1947.

It was early in the Spring of 1946 that J. P. Sawyer was commissioned to design a suitable mode of presentation for Crown Jewel Perfume. We at Prince Matchabelli felt that the prime considerations in the designing should be the name of the perfume and the crown bottle that was to contain it. We wanted the package itself to have a jewel-like quality and inasmuch as Lucite was looming on the horizon as a great display potentiality, we believed that it would be the perfect medium for displaying the crown bottle to its best advantage. The finished design was startlingly wonderful for it showed the crown bottle set, as it were, in the heart of a flawless diamond!

Mr. Sawyer had, of course, consulted with a manufacturer on his proposed use of Lucite and the manufacturer he chose was Industrial Conversions, Inc. because he knew they had done some very successful experimental work with acrylics. In their opinion the execution of this unusual design was within the realm of possibility and, fortunately, they possessed the necessary amount of pioneering spirit and enthusiasm to make it a reality. But, as with all trail-blazers, there comes a time when it seems that more has been attempted than can be achieved and the case of the Crown Jewel package was no exception.

The designer, having created a masterpiece in design, had finished his part of the job. From then on it was a struggle, not to death, but to final achievement, between Industrial Conversions and the Purchasing Department of Prince Matchabelli.

At first glance, the Lucite enclosure holding the crown bottle seems to be a solid block but actually it is made up of two blocks of equal size, each containing the impression of half a crown bottle, which when joined form a cavity into which the bottle fits perfectly. The first step of Industrial Conversions was to carve a model out of Lucite, but when the crown bottle was inserted in the cavity of the two joined squares it lost its clearly defined crown shape and took on a silvery, diffused appearance. The curvatures of the bottle clashing with the plane surfaces of the Lucite had caused a refraction of light. Believing that this effect was produced by air pockets between the bottle and the Lucite, Industrial Conversions decided to make an actual die for molding their first sample. This proved to be merely the beginning of their experimental work for there yet had to be determined at what temperature, under what pressure, and for what duration of time this material, an unknown quantity at this point, could be molded from a die. The first test proved that the air pockets had been eliminated but many sanding and buffing compounds had to be experimented with before one was found that would give the molded Lucite the degree of brilliancy necessary to make the display piece completely effective.

There still remained the problem of bevelling the outside edges of the square and corners to give the block of Lucite the cut appearance of a faceted precious stone. The method by which this effect was achieved will have to remain undivulged, for in their striving the manufacturers discovered the surest and most highly developed way yet of treating Lucite and we can't blame them for wanting to keep it a secret. They earned that right by the sweat of their brow and all the ingenuity they could muster.

That Lucite in appreciable quantities was almost impossible to obtain at this time was far from the least of our problems. The war having just ended, many manufacturers were alert to the possibilities of the use of this plastic material and the demand for it was far greater than the supply. On a sudden inspiration we showed the sample to the Du Pont Corporation executives and their amazement at and enthusiasm for the use to which we were putting their Lucite led them to promise us ample quantities for our needs. In fact, from that time on Du Pont cited our example in all of their sales talks and presentations covering Lucite usages. Just recently they featured our Crown Jewel package in a three-color Du Pont Plastics ad which was run in ten magazines, including *Time*, *Business Week*, *Modern Plastics*, *Modern Industry*. The lead line hailed the package as "something new in scent's appeal . . . perfume package of Du Pont 'Lucite' paves the way to new sales."

As one problem was overcome in the development and production of this unique package, another occurred. The next one happened along the assembly line in our Prince Matchabelli factory when it was suddenly discovered that the crown bottle was too large for the Lucite block enclosures. Every step in the molding of the Lucite was checked thoroughly, and frantically at this point for we were nearing our deadline, but no error could be detected. Could it be that the size of the bottles was varying? The bottle manufacturer was called into consultation and, sure enough, to overcome certain of his manufacturing problems he had increased the size of the neck of the bottles 1/32nd of an inch, which made all the difference between the fitting and non-fitting of the Lucite blocks. There was only one thing that could be done at this point and that was to make completely new dies for the molding of the Lucite pieces. This involved another waiting and working period, but this time the last problem had been solved.

And so, with the assembly line working overtime, the promised delivery date on the new Crown Jewel Perfume in its jewel-like package was met. The months of arduous endeavor were behind us. A new perfume was successfully launched and it paid tribute to an unbeatable combination . . . the unsurpassed art of French perfumery and the unrivaled ingenuity of American packaging.

PROPRIETARY MEETING

KENNETH A. BONHAM

In the first out-of-town meeting in many years, the Proprietary Association established a new high record for attendance at sessions which marked a new high also in attendance and in interest. On the second day of the three-day meeting held at the Claridge Hotel, Atlantic City, Dr. Morris Fishbein, editor of the Journal of the American Medical Association, delivered an address on compulsory sickness insurance by taxation under the bill introduced in the present Congress as the Murray-Wagner-Chavez-Pepper-Dingell Bill.

At top form, Dr. Fishbein told how just the day before, President Truman had sent a message to Congress calling for enactment of the bill, which message had been sent from the home of the President's mother to which he had flown "with a physician of his own choice." Dr. Fishbein admitted that it was probably a good thing that the medical profession had been pushed around by the Government in recent years. He pointed out that Government funds for research could not be distributed in accordance with a proper plan as to where they should be given for optimum results, but that they had to be allocated according to Congressional Districts so that each Congressman could obtain a certain amount of the money for use in his own particular district. He claimed that 24,000,000 people were now covered by voluntary sickness insurance plans with perhaps 10,000,000 or 15,000,000 additional people covered in other ways. He stressed the importance of the voluntary publicly sponsored foundations for research into and control of many diseases such as cancer, infantile paralysis, pointing out that these organizations were able to accomplish results which could never be obtained by Government agencies with still greater funds available.

Dr. Fishbein stated that there are 195,000 physicians in the country of which 160,000 are in active practice. He stated that there was one physician for each 700 people in the country, against greatly higher numbers of people to each physician in other countries of the world. However, he admitted the physicians of the country are not well distributed, and considered this as a problem pressing for solution. However, he expressed the opinion that these physicians could not be pushed around like "buttons on a bingo board" as the Government proposed.

Dr. Fishbein stated that in the testimony which he had read from the trials of the Nazi physicians for the brutalities that they exercised on prisoners in concentration camps is the evidence of a famous medical historian. This historian traces the deterioration of ethics and humanity in the German medical profession definitely to the installation of the system of compulsory sickness insurance by Bismarck in 1883. "Certainly if we are wise," said Dr. Fishbein, "we will follow in our planning a system as far removed from that as we can possibly conceive."

James F. Hoge, general counsel for the Association, stated that the Federal Food, Drug, and Cosmetic Act "has worked radical changes in the composition, labeling and advertising of drugs advertised and sold direct to the public. Such changes have been publicly noticeable. In fact, the law has accomplished the demise of many of these products. But to the meritorious it has given dignity, not otherwise attainable, and a place and part in the service of the nation's health.

"There has been a democratizing influence in this law and while the effect upon medicines not advertised to the public may not have been as publicly noticeable, it has been nonetheless pronounced. Old lines of divi-

sion and marks of distinction have been wiped out. New ones, and fewer, have been set up. Now principally there are just two classes—prescription and over-the-counter.

"Nomenclature has changed too. 'Pharmaceutical specialty', 'ethical' and 'proprietary' are now legally meaningless terms. And the old familiar 'patent medicine' muchly maligned, justly and unjustly, is fading away. Long a misnomer, it is now confusingly inept, for the patents are on the so-called ethical products and 'patent medicine' has no more reference to patents than has 'patent leather.'

"The word 'ethical' as used to indicate a medicine dispensed on prescription, is misapplied because ethics apply to persons and not things. If it means that an ethical product is a product of an ethical manufacturer, that is one thing. But the word in this connection applies to the moral standards of the manufacturer and not to the things he sells. So, 'ethical,' as applied to drugs, is just as much a misnomer as 'patent medicine'. Besides, it's a haughty word, and the manufacturer of ethical preparations, so-called, has a tendency to look down his nose at his brother in the so-called proprietary business, and to high-hat him.

"I take the liberty of suggesting that we jettison 'ethical,' 'patent' and 'proprietary' and adopt nomenclature more adequately expressive of the classification under modern practice."

Association Executive Vice-President, Dr. F. J. Cullen, spoke of bills pending in Congress and in some state legislatures which place the Federal Food and Drug Administration, as well as the state food and drug enforcing officials, under the supervision of physicians, raising the question whether such a change would be best for the consumer. Dr. Cullen stated:

"It must be remembered that the principal function of the Federal Food and Drug Administration is primarily that of affording the consumer economic protection. The majority of the funds appropriated for the enforcement of the Federal Act is used in the food field. Food may be contaminated and still not dangerous to health, but of course the product would not be used for aesthetic reasons.

"The Act also protects one's pocketbook against deceit in label statements and slack-filled packages. To detect such matters does not require the skilled techniques of a physician. It must be realized that only about one-third of the funds appropriated is used in the drug and cosmetic field. Most of the cases brought for violation of the drug section of the Federal Food, Drug, and Cosmetic Act are more spectacular and more likely to make headlines than are the cases brought against shipments of contaminated food. If a physician were placed in charge of the Administration, he would, no doubt, consider that drugs are the most important items and might, therefore, use the appropriation in such a way that the greatest benefit available under the Act would not be afforded the consuming public."

On the subject of socialized medicine Dr. Cullen said:

"In my opinion, the physician, dentist, nurse, pharmacist, wholesaler, and manufacturer of medicine must all cooperate to make safe and efficacious medical and dental care more available and at a reasonable cost. If this is not done, their business and professions will be controlled in the course of a few years by a political physician under the direction of the State or Federal Government or both. I am sure that the majority of the thinking people of the United States do not want socialized medicine."

Dr. Cullen commented on other subjects as follows:

"Packaged medicines that are offered for sale today are in most instances manufactured under strict controls, and their labeling and advertising contain no misrepresentations of the facts. There was a period a few years ago when research and controls were conducted on a hit or miss basis. Many were of the opinion that research and dividends were not compatible, but I feel sure it can be said that this era has passed. The majority of manufacturers realize their responsibility to their fellow men when preparing medicines for the relief of suffering, and research is absolutely essential in order to afford the consumer the best possible products.

"The labeling material for packaged medicines has improved to such a great extent that the members of the Food and Drug Administration are now spending more time than heretofore in checking the methods of control and the sanitary conditions of manufacturing plants and warehouses. This type of inspection will be increased as time goes on."

Commissioner Lowell B. Mason, of the Federal Trade Commission urged adoption of the plan originally sponsored by President Truman for an enlargement of the trade practice conference procedure as a guide and aid to businessmen in solving their problems of complying with Government rules and regulations. The Commissioner charged that hit-and-miss prosecutions of individual cases in an attempt to get enforcement of the law often proved inadequate protection to the public or the businessman. He said that in the realm of commercial law, in the realm of anti-trust regulations and fair trade regulations there is so much confusion and uncertainty that practically anyone engaged in interstate commerce is subject to government attack. He pointed out that there are 2,200 inhibitions already established under the Federal Trade Commission Act and that in a study by Professor Sutherland of Indiana it was found that everyone of the corporations studied had been guilty of a violation of some act relating to business regulations.

Commissioner Mason said that in spite of all the charges and countercharges, it still remains that the great need for the American businessman today is the establishment of some intelligible rules written in the language of the shop which interpret the Federal Commission and the anti-trust laws of the specific problems that each industry faces.

Associate Commissioner Charles W. Crawford, of the Food and Drug Administration, complimented the members of the Association in the following words:

(Continued on page 861)

COURTESY FREDERICK STEARNS & CO. DIVISION

Equipment used in the production of amino acids mixtures for medicinal use.

AMINO ACIDS For Medicinal Use

PART II

By CHARLES F. KADE, Jr., Ph.D.*

THE three classical methods for the hydrolysis of proteins have been tried commercially and two are in use today for the manufacture of products on the market. Nature uses enzymes to break the proteins down into their constituent amino acids. This process can be accomplished, in vitro, by the use of a wide variety of enzymes from both plant and animal sources. Trypsin, a powerful peptide splitting enzyme, gives extensive hydrolysis with small quantities. However, the degradation is never complete as trypsin will not split small peptides. Thus, some other enzyme must be added to complete hydrolysis. This can be accomplished by using the pancreatic enzymes carbozypolypeptidase and dipeptidase, which will split the peptides formed by trypsin. One commercial method of production of an enzymatic hydrolysate is to digest casein with whole pancreas at the proper pH. In this manner, the great majority of the proteins present can be degraded to amino acids and small peptides. The remaining proteins can be coagulated by heat and removed.

*Director of Biochemical Research, Frederick Stearns & Company Division of Sterling Drug, Inc. Presented before the Division of Medicinal Chemistry at the American Chemical Society, Chicago, Ill., and released for exclusive publication in this magazine.

Another common method is to start the digestion with trypsin and complete it by the addition of erepsin,—the combination of an aminopolypeptidase and dipeptidase obtained from intestinal juice. These enzymes will carry the hydrolysis almost to completion, but are very difficult to handle as they are readily inactivated. The advantage of enzymatic hydrolysis lies in the mild conditions used which prevent any great destruction of amino acids. Unfortunately, in large scale production, enzymes are easily deactivated and the solutions readily contaminated. Bacterial enzymes decompose the amino acids and give rise to harmful end products. Even though the bacteria can be killed or removed, after hydrolysis is complete it is extremely difficult to remove the pyrogens produced. Careful control of an enzymatic procedure is essential. A few large polypeptides cause serious anaphylactic reactions. Unfortunately the routine determination of molecular size is laborious and the exact size of a polypeptide which will be an antigen is unknown. So far, no one has synthesized a simple polypeptide of known composition and size which is an allergen. Thus, until more specific knowledge is available, it will be necessary to prove that the material will not cause an anaphylactic reaction by in vivo tests.

The removal of the enzymes and impurities which are introduced with them may also be a complicated procedure. In most cases, this can be accomplished by heat coagulation inasmuch as the enzymes are proteins. However, it is necessary that complete removal be effected to prevent possible catalytic synthesis of larger chains as well as reactions which may be caused by the enzymes themselves.

The second classical method for hydrolysis of proteins is by means of acids. Early workers such as Liebig and Mulder decomposed proteins by treatment with acid or alkali. Essentially the methods have remained unchanged; the hydrolysis being accomplished by the use of mineral acids. Time, temperature and concentration greatly effect the rate and extent of degradation.

The earlier workers usually refluxed the protein with moderately concentrated sulfuric or hydrochloric acids. Such a procedure results in destruction of amino acids. Furthermore, the removal of the acid is difficult and, especially in the case of sulfuric acid, the large bulk of precipitate formed on neutralization with barium or calcium absorbs a number of amino acids.

Within the past few years, several groups of investigators have reported hydrolysis by weaker concentrations of acids. White and Elman[12] Table III, showed that 2.6 N sulfuric acid will liberate 60 per cent of the amino acids from casein in 6 hours at reflux temperature. Using this procedure, 85 per cent of the tryptophane was not destroyed. In contrast, hydrolysis with 8 N sulfuric acid in 24 hours, results in complete destruction of tryptophane. These workers reported that no reactions were obtained when the material was given to dogs by vein. Experiments conducted in this laboratory have shown that as long as the ratio of alpha-amino nitrogen to total nitrogen is above 60, no reactions are noticed when the material is given parenterally. However, if the degree of hydrolysis is somewhere near 50, a few animals will develop edema or hives. As the degree of hydrolysis is decreased, the edema becomes more pronounced. After the administration, all symptoms will disappear in a few minutes with no apparent effect on the dogs. Such solutions will not sensitize guinea pigs, nor is it possible to shock pigs sensitized to casein with this material. If, however, the hydrolysate has a ratio less than 50 per cent on injection, there are obtained typical shock symptoms which may result in death of the animal. These solutions will sensitize guinea pigs.

TABLE III[13]

Hydrolysis with 2.6 N Sulfuric Acid

Protein	*% Hydrolysis 6 hrs.*	*% Tryptophane Remaining*
Casein	60	85
Pumpkin Seed Globulin	55	65

Frost and Heinsen[8] reported on the degree of hydrolysis which can be obtained with 2.8 N sulfuric acid with a concentration of 1 part protein to 5 parts acid weight by volume. (Table IV).

TABLE IV[8]

Hydrolysis of Casein by 2.8 N Sulfuric Acid

Protein	*Hydrolysis Hrs.*	*Amino N Per Cent.*
Casein	Complete	76.
"	2	30.6
"	4	35.2
"	5	41.4
"	6	42.7
"	24	63.8

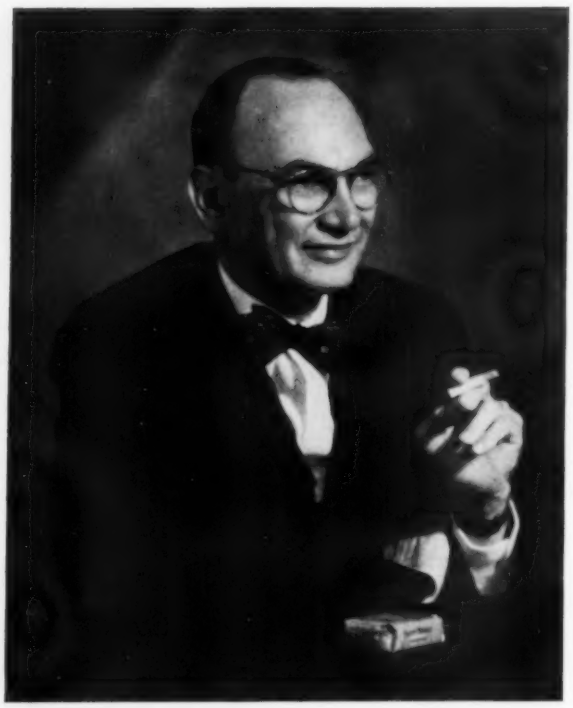
By measuring the free amino nitrogen both by the Van Slyke nitrous acid procedure and Ninhydrin method, they calculated that the average peptide length was four after 2 hours refluxing, three after 6 hours, and two after 24 hours.

There is a growing body of evidence that such peptides are utilized when injected intravenously. Risser, Schenck and Frost[11] have maintained dogs in positive balance for three to four weeks with such hydrolysates as the sole source of nitrogen. In this laboratory we have injected partial casein hydrolysates for at least two weeks with good positive balances.

A disadvantage in acid hydrolysis is the destruction of tryptophane and perhaps other unidentified amino acids. However, by careful hydrolysis with weaker concentrations of acids, this can be substantially overcome.

The third common method of hydrolysis is by means of alkali. This has an inherent disadvantage for commercial development. Alkali completely racemizes the amino acids and since only the natural form of several of the amino acids is utilized, the quantity of some of the amino acids available for synthesis is cut in half. The body only uses the natural form of threonine,

(*Continued on page 862*)



PAUL H. DOUGLAS

THE T. G. A. CONVENTION

ESTABLISHING a new record for attendance with 880 registered for the first day, the Toilet Goods Association held its annual meet ng last month at the Waldorf-Astoria Hotel, New York. The meeting opened with a general discussion of the proceedings of the Fair Trade Practice Conference which had been conducted by the Federal Trade Commission at the same hotel during the two preceding days.

President Paul H. Douglas, in his report which opened the afternoon session, presented a strong argument for the repeal of the Federal retail tax on cosmetics. Mr. Douglas said in part:

"For the past two years industry as a whole has been urged by Government to pay higher wages and at the same time keep prices at current levels. Our industry can readily be cited as an almost perfect example of that theory in operation. Since 1941 the labor cost of toilet goods manufacturers has been increased from 75 per cent to 125 per cent, depending upon the extent of the fringe adjustments such as vacations with pay; paid holidays, health insurance, hospitalization, etc.

"During the same period our sell ng price to the consumer has remained practically unchanged, particularly the price of commodity items. During the same period our cost of all materials have increased, especially during the past twelve months. We have absorbed our own increased cost of labor, our suppliers' increased cost of labor, the increased freight costs, and in many cases the effect of fixed exchange on the cost of essential materials produced in countries suffering from a high degree of inflation, but our prices to the consumer have remained practically unchanged except on items aggregating but a relatively unimportant percentage of our total volume.

"What has made this possible? One thing—and one thing only—*volume*. The 66 per cent increase from $420,000,000 in 1941 to $700,000,000 in 1946 has been the saving factor. Our percentage of profit is down but our dollars and cents profit is reasonably good although not at all commensurate with our increased volume.

"Today we are beginning to see a definite threat to our volume picture. The latest treasury report on excise tax payments shows a falling off in retail sales of our products. This trend, if continued, is going to necessitate the repricing of our lines, but instead of lowering prices we would have to increase prices due to lack of ability with reduced volume to absorb the increased labor and material costs of the past six years.

"How can this situation be avoided? Can we economize on our advertising and promotional activities? The answer is, we can to a limited extent, but if we carry it too far we will merely accelerate the rate of decline and, moreover, it will set off a chain reaction affecting disastrously industries which depend upon us. Is there a solution to this problem? I say there is a simple, just and logical solution.

"You will note that I have stated that our prices have not increased materially, but bear in mind that the cost to the consumer has been increased by the 20 per cent sales tax, and that is by far the major increase in the cost of our merchandise to the consuming public.

"By the continuation of a 20 per cent sales tax on toilet goods the government is collecting, principally from the women of the United States, approximately $250,000 a day every day in the year including Sundays, mostly as a result of their purchase of absolute necessities, ranging from baby powder and deodorants to a jar of cream or a box of face powder—not luxuries but acknowledged necessities of life recognized by penal institutions, home relief, state and government agencies.

"During the war years we made no protest—none was warranted. It was a burden we bore cheerfully and without undue hardship. Today we must show clearly that this tax is an almost unsurmountable obstacle if our industry, which has continuously worked along the lines of the desire of our govenrment, is to continue to progress.

"The elimination of the twenty per cent sales tax would result in an immediate upsurge in volume, and it would enable us to retain practically the pre-war prices that now exist, and present those few houses that have been forced to increase certain items with a possibility of reducing their prices. Our suppliers can continue to prosper and we can continue the present high wage levels while maintaining existing price structures, and that is the accepted formula for continued prosperity.

"Let no politician interpret my desire for the elimination of the 20 per cent sales tax as affording the basis for a recommendation of a manufacturers' excise tax. Let us hope that nevermore will we suffer the hypocrisy of this hidden tax. We hope that never again will our law-making bodies mock the consumer with a tax which is there but which he does not see."

Executive vice-president S. L. Mayham touched on the same subject as follows:

"When this industry thinks of Washington, it necessarily thinks of the high excise tax which continues to burden most of the products of this industry. As you know, Congress extended all excise taxes at wartime rates early this year. We studied the extension bill and and all of the reasons, actual and political, which prompted it, and came to the conclusion that as a temporary measure its enactment was inevitable. You will note that I have used the words 'temporary messure'. The present law is just that. Having promised sweeping tax reductions in other directions, it would hardly have been political wisdom to jeopardize them by immediate reductions in excise revenues. It is the purpose of Congress to investigate and revise excise schedules in a general tax revision measure soon. With that in mind, the Association did not expend its ammunition fighting the inevitable extension measure.

"There is no doubt that at leas 95 per cent of the products of the industry are essentials to the health, morale and well being of the consuming public. To tax such products in peace time at the absurdly high rate of 20 per cent is a distinct disservice to those consumers. When the general revision bill comes up, your Association will use every effort to bring about the elimination of this unfair tax. At the same time, we believe that the incidence of any consumption tax should be at the point of retail sale. The public should be aware that it is paying any tax levied upon it. Only in this way can abuses of the revenues be avoided and constant pressure for governmental economies be maintained."

Mr. Mayham revealed that the membership of the Association has increased to 371 active, and 167 associate members, a total of 538, as against figures for a year earlier of 356 active, and 158 associate members, a total of 514. This membership represents nearly 90 per cent of the industry in volume of sales.

Trade-Mark Counsel Walter J. Derenberg, U. S. Patent Office, spoke on the Lanham Trade-Mark Act. Among other things, he discussed traps into which trade-mark owners might fall such as the following:

"The new law for the first time permits the use of an abbreviated registration notice, to wit, the letter 'R' enclosed in a circle. Already advertising agencies are jumping at the occasion to suggest more artistic advertisements by omitting the customary notice and substituting the abbreviated form therefor. Such a suggestion will, of course, result in the usual difference of opinion and approach by the advertising agency and legal counsel. It is my personal opinion that wherever there might exist the slightest possibility of a mark's becoming a common descriptive term, the full trademark notice rather than the abbreviated from should be used. Thus the manufacturer of the world-famous 'Thermos' bottle is presently engaged in a vigorous campaign to preserve the trade-mark significance of the registered mark 'Thermos,' and it would be poor strategy, in my judgment, for any trade-mark owner to take advantage of the abbreviated notice under the new Act in any situation where it is important and mandatory to keep the trade-mark significance of the word constantly before the public eye."

Scientific Research and Standards Director H. D. Goulden spoke of the work of the Scientific Advisory Committee whose normal function is the development of standards for raw materials, 25 such standards having been issued to date. Mr. Goulden gave the membership of this committee as follows: Dr. Frederick J. Austin, retired; Roland W. Babb, the Mennen Company; Dr. Henri Coutinho, Perfumers Manufacturing Company; Dr. Dan Dahle, Bristol-Myers Company; Leo DeCosta, Wallace Laboratories; Louis B. Dobie,

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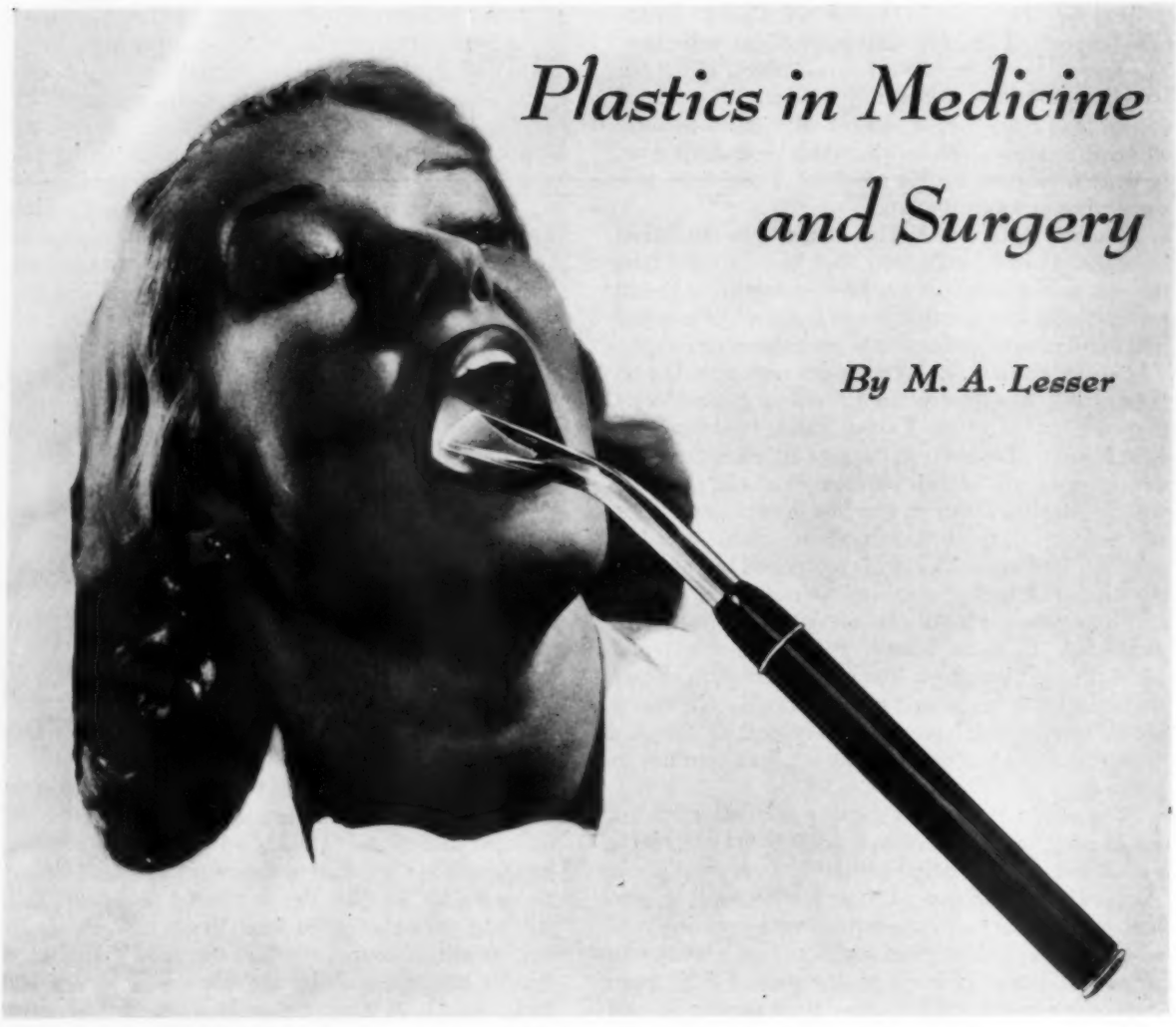
Plastics in Medicine and Surgery

By M. A. Lesser



The combination tongue depressor-flashlight, above, is made with "Lucite" acrylic resin which conducts very little heat and has the property of "piping cold light around curves."

THE possibilities of plastics have long stirred the imagination. Today there is hardly a phase of life untouched by these versatile materials. Of course, medicine and surgery have found plastics very useful in a number of ways. Formerly, plastics were used chiefly in the production of instruments for diagnosis and treatment. Now they have found important applications on and in the body in the form of sutures, as tissue coverings, in splints that permit X-raying without removal, as cups to reline arthritic hip joints and in life-like prosthetics.

Industry has developed numerous synthetic resins from which plastic products may be formed. In addition to synthetic resins, there are various cellulose deviatives which may be molded into many forms or extruded as sheets or filaments. At first glance, it would seem that a wealth of material was available for use in medical and surgical procedures. Actually, when all the requirements are considered, the number of plastics that can be used for such purposes are narrowed down to just a few.

Some of the factors which must be taken into consideration are indicated in the report by Ingraham, Alexander and Matson[1] on the use of synthetic plastic materials in surgery. They state that certain general criteria should be met in the selection of any substance to be buried in human tissue. The material should be nonabsorbable and not modified by tissue. It should be chemically inert, free from tendency to cause early or late tissue reaction, non-epileptogenic when buried in brain tissue, and non-carcinagenic. With certain rare exceptions, any solid plastic to be used in normal human tissue should satisfy these requirements.

At present a comparatively small group of plastics

has been found suitable for use on or in the body. This includes methyl methacrylate, nylon, vinyl resins, polyethylene, regenerated cellulose and cellulose nitrate. Even though the group is small, it provides a wide range of properties to meet many varied needs. On occasion other plastics, such as those made from phenol-formaldehyde or urea-formaldehyde resins, find specialized uses.

Unquestionably, methyl methacrylate is the most important plastic used in medicine and surgery. Generally referred to as acrylic plastics or resins, methyl methacrylate is also known in commerce as Lucite and Plexiglas, and in England as Perspex. Methyl methacrylate is supplied as a clear liquid monamer and as a polymer in powder form. When mixed they yield a soft mass, which, on heating, undergoes irreversible polymerization.[2] The plastic can be cast in the form of sheets, rods or tubes, or it can be molded to any desired shape.

The plastic has many advantageous physical properties. It is light, hard, tough and has a high tensile strength. It is chemically inert and stable, has negligible water absorption, and is nonporous. Since its surface is impervious to the ingrowth of bacteria, the plastic is easily sterilized.[1] Though transparent, acrylics are readily opacified and colored.[3] Certain distinctive properties, like radio-translucency and the ability to carry light around curves, make this plastic valuable in splints and diagnostic instruments.

Methyl methacrylate plastic has been found harmless to the delicate tissues of the animal and human body.[4, 5] It retains its form and is not absorbed into the tissues. In experimental work, acrylic did not incite any foreign-body reaction, even in the presence of wound infection[6] or when in contact with the brain.[7] In one study,[8] the placing of large or small pieces of Lucite in the subcutaneous tissue of rabbits provoked no gross or microscopic reaction, even after eighty days.

The advantages of acrylic plastic was first recognized by dentists. Today, ten years after its introduction into this country, this plastic is still looked upon as the greatest advance in materials for complete and partial denture prosthesis. Acrylics are also widely used for crown and inlay work.[3, 9] Available under a number of trade names, the advantages of acrylic resins for dentures have been concisely summarized by Salisbury.[10] He noted that such dentures are unbreakable, inert to metals, food and saliva, noninjurious to mucous membranes, and easily kept clean. Furthermore, methacrylate is the hardest of the thermoplastic resins, has a wide color range and retains its color indefinitely, shows no fungus or bacterial growth, no deterioration, and is half the weight of porcelain.

These superior properties attracted the attention of workers in other phases of medicine. One such is the field of somatoprosthesis, which is concerned with the restoration of missing or lost anatomic parts of the face or other parts of the body. Providing considerable cosmetic improvement and tremendous psychological comfort, the use of such restorations is of great importance because of war injuries. However, motor and industrial accidents can be as disfiguring as bullets and bombs. Disease may destroy tissues and cancers and tumors may necessitate surgical removal of parts of the face or body. Often plastic surgery cannot be done, and even where surgery is feasible, the individual is happier if a temporary restoration is made.[11]

In 1941, Munson and Heron[12] made acrylic facial restorations for three patients. Having had experience with other restoration materials, they felt that acrylic was the material of choice because of its color, cleansibility and permanence. Since then, others have used acrylic plastic for restoring noses, ears, and other parts.[3, 11]

Undoubtedly the most important use for acrylics in the field of restorations has been in the production of artificial eyes.[3, 13, 14] In addition to producing a much better eye than that made of glass, the acrylic eye is more satisfactory cosmetically, is safer, more durable and easier to make. In addition to being practically unbreakable, the plastic eye fits better, moves more easily in the socket, and is more resistant to body fluids. Hence it does not require replacement every year or so, but may be repolished periodically.[15]

Although stock acrylic eyes are available, far better results are obtainable with individualized methods developed during the war. The individualized prosthesis is more comfortable and color duplication of both the sclera and iris is very exact. The greatest esthetic gain, however, is in mobility. Because of the complete and positive contact of the individually fitted acrylic eye there is a life-like spontaniety and range of movement unobtainable with stock restorations.

While on the subject of eyes, mention should be made of plastic contact lenses made with acrylic resin. Replacing contact lenses of glass, acrylic lenses are being worn by thousands of people because they are much lighter than glass and are practically unbreakable. It is estimated that such lenses can be worn by about 85 per cent of persons wearing spectacles. Therapeutically speaking, the outstanding indication for contact lenses is keratoconus. In this condition there are varying degrees of central bulging of the cornea. Satisfactory vision is not obtained with the usual spectacles. The vision is improved and the cornea is protected by contact lenses. In high myopia the use of thick lenses is obviated and better vision is usually obtained with contact lenses. Such lenses are indicated in various other eye conditions.[16, 17]

In certain occupations and in many sports, plastic contact lenses decrease danger and increase efficiency. Cosmetically, these lenses have proved a boon to actors, lecturers and others who make public appearances.

The reduction of fractures has been greatly enhanced by the use of transparent, light-weight, practically unbreakable acrylic plastic splints. Being radiotranslucent, such splints permit X-ray examination without removal. The material is supplied in blanks of various

(*Continued on page 856*)

A CHANGING INDUSTRY

That this is a changing industry is indicated in all its branches. The change that has, and still is, taking place is due to many contributing factors, the main one of which is the increased education of the average person in matters of health and beauty. Largely as the result of this education, the Food, Drug, and Cosmetic Act was enacted in 1938, and this law helped to accelerate a trend that had already set in, namely a swing by the people of the country away from so-called proprietary preparations to the so-called ethical preparations. But as has been pointed out many times recently, there are today really only two types of preparations—those sold over the counter, and those sold only on prescription. It is true that different methods of merchandising are employed by different companies for marketing their over-the-counter preparations, but so far as the law is concerned they are both the same.

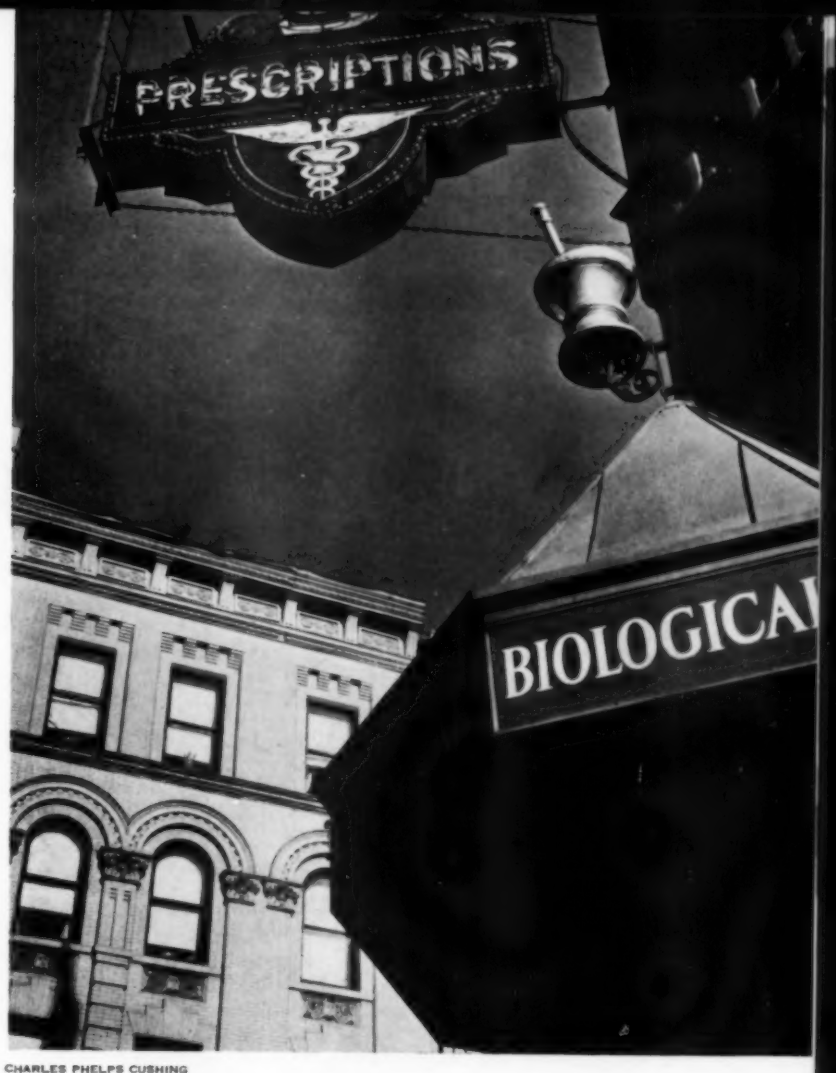
Some people are apt to distinguish between preparations advertised to the public and those advertised only to the professions of medicine, pharmacy, dentistry, and others of this type. But if any of these preparations are sold over the counter, the labeling requirements and other requirements are identical. They must both carry on their labels "adequate directions for use" as well as the names of all active ingredients. They must carry the same required warning statements depending on the nature of the product. And with the great growth of so-called ethical specialties, so-called proprietary preparations exist in large number in practically all drug manufacturing companies, and probably to a greater extent, so far as numbers are concerned, in the so-called ethical houses.

Sensing the trend of the swing toward so-called ethical preparations before the Food, Drug, and Cosmetic Act was enacted and accelerated this trend, some of the larger manufacturers of so-called proprietary preparations started to enter the field of so-called ethical preparations by buying existing firms. Still others have established ethical divisions, such as the Eaton Laboratories of the Norwich Pharmacal Company, and Ames Laboratories of Miles Laboratories. And these changes have caused a change in the people who attend the various association meetings of the industry. For a number of years past, and in increasing amount, one is apt to see at a Proprietary Association Meeting people who formerly attended only one or both of the meetings of the American Drug Manufacturers' Association or the American Pharmaceutical Manufacturers' Association. Thus to a greater extent, the drug manufacturers of all types throughout the country are approaching a more common level and are being directed by the same class of men.

The proprietary manufacturers who bought up ethical houses and those who established ethical divisions were attracted to this different branch of the industry for several reasons. The main reason is that today, more than ever before, it is extremely difficult successfully to launch a new drug preparation by simply advertising to the public. Almost without exception a new preparation must be introduced through the doctors, dentists, and others through detail men. After the product has been successfully launched in this manner, then it can be advertised to the public. And a manufacturer who wishes to launch a new preparation cannot build up a detail force overnight, nor can he support it very long with one new preparation. He must have a business which calls for and supports an efficient and adequate detail force. Many times, products introduced through the use of a detail force have become so popular that advertising to the public was decided upon to increase the sales volume to greater heights. In these cases, the successful preparation has been transferred to a new company or division while the so-called ethical company or division continued to operate in an unchanged manner.

Another reason why manufacturers of goods advertised to the public have entered the so-called ethical field is that this field in recent years has proved to be very lucrative, and in a great many instances more lucrative than the so-called proprietary field. Also, the well established houses in the so-called ethical branch of the industry ride along with a steadier volume of sales and with a steadier profit statement than do the manufacturers of products advertised to the public. In fact, the manufacturers of products advertised to the public have found it an extremely wise move from all angles to get into the so-called ethical branch of the industry and they have been extremely willing to spend very large amounts of money to establish themselves in this branch.

So-called proprietary manufacturers received a bitter lesson in the field of vitamins. Here are products which are all the same, varying only in the various factors in-



CHARLES PHELPS CUSHING

cluded and in the potency of these factors in the particular preparations. There is nothing tricky or different about vitamins. However, many a manufacturer who tried to sell vitamins through the medium of advertising to the public, found that he was fighting a losing uphill struggle. One by one they were forced to retire from the field, until today there are very, very few of them left. This was not only a shock to the proprietary manufacturers themselves, but it was a pleasant surprise to the manufacturers who promoted their vitamin preparations only through the professions. But here was the hand-writing on the wall and the proprietary manufacturers read it well. This failure successfully to market vitamin preparations by advertising to the public, meant that the large majority of the products of the future probably could not be sold in this way. For the new products which are making their appearance are the results of intense scientific research and extensive clinical testing. And this sort of background for a product means that it must be sold on the merits as evidenced by this research and testing. Certainly no manufacturer in his right mind would attempt to educate the public to what such a product can do and the reasons therefor. Since the product can only be launched successfully by use of the discovered information, this information must be presented to someone who will understand it, and that someone is the doctor.

The cosmetic branch of the industry has also felt some of the same effects as the drug branch due to the Food, Drug, and Cosmetic Act, and due to a steadily increasing interest by drug manufacturers—particularly the so-called proprietary manufacturers—in cosmetic manufacturing firms. Since the Act was enacted in 1938, there has been a marked tendency to conduct scientific research into the actual effects of cosmetic preparations and their ingredients. This trend has been particularly marked among those cosmetic manufacturing firms which are owned or controlled by drug manufacturers. Also we have seen come into being an active scientific section of the Toilet Goods Association as well as a Society of Cosmetic Chemists. For many long years, manufacturers of cosmetics were extremely secretive about their knowledge of cosmetics and their ingredients. They preferred certain types of ingredients for certain unmentioned reasons and they had their own standards by which they tested the ingredients which they used.

However, this has largely changed today and we see an extremely large group of cosmetic scientists cooperating in the Toilet Goods Association Scientific Section. Also we see a rather large committee of this section continually working on standards for the various cosmetic ingredients, some twenty-five of these standards having been published thus far. In short, this would indicate that the industry is gradually giving up its secrecy and its empiricism which for so many years was a peculiar ingredient of the industry. In large part this has been due to the fact that the large chemical manufacturers have developed new chemicals and have conducted investigations which have proven that these chemicals had a definite place in the manufacture of cosmetics. And these chemical manufacturers published their findings widely so that everyone knew just

(*Continued on page 864*)

"tomorrow is HERE," says ROBERT GAIR

GAIRCOTE REPRODUCTIONS ARE SO PERFECT, SO NATURAL THAT THEY ARE ACTUALLY "TRUE TO LIFE"

THIS ULTRA SMOOTH GAIRCOTE offers a new scientific process for exacting and fascinating multicolor reproduction of your products. At last, with GAIRCOTE, your package will radiate and reflect the dramatic eye-appeal and buying impulse you have been striving to achieve for years . . . and with substantial economy, too. GAIRCOTE multicolor reproduction presents an opportunity for a new version of leadership, when and where your package is called upon to meet competition.

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PACKAGING and SELLING

"PROPORTIONATELY EQUAL" PROPOSALS

There is a tendency on the part of some cosmetic manufacturers to jump the gun in offering plans to the retail trade which would anticipate the Federal Trade Commission's interpretation of the Robinson-Patman Act.

The recent industry Trade Conference convinced quite a number of manufacturers that something is really going to happen, even though it may be several months away.

One leading treatment house now has its executives out on the road offering a plan to retailers. It is a rather complicated plan, and we are not quite sure if we have the hang of it, but it goes something like this. The regular trade discount of 40 per cent is allowed. Following this, there is a discount of 8¾ per cent, and following this an estimate of annual volume is taken, or the volume of the previous year, and the store is offered 2/3 of 1 per cent for each linear foot of counter space devoted to this company's products.

These discounts are supposed to take care of the cost of all money the company has been expending with the store. All retail accounts are supposed to be offered this same plan on equal terms, depending upon the volume they do for the company. As we figure this out, a store which does $10,000 a year business for this company, would first get their normal trade discount of $4,000, which they are getting from everyone else. After this the discount of 8¾ per cent would amount to $525.00.

If the store gives five linear feet of counter space for this volume, which would be about normal, the store would get another $375.00. The total additional discount on this $10,000 volume would therefore be $900.00. A $10,000 account is a fairly substantial department store account. If it is a good store with potentials, it normally rates a demonstrator, a sum for cooperative advertising, and other promotional expenses. $900.00 falls quite a bit short of covering this amount. Retail opinion seems to be that this might work out for accounts exceeding $25,000; it would be completely inadequate from the viewpoint of replacing present arrangements in stores doing medium volume, but would give a few extra dollars to the druggist, which he may not be earning.

We would also like to know when this linear foot measurement for the year is to be taken, and if the druggist is to be notified, so that he can rearrange his counter space.

This plan may indicate a type of formula that will finally emerge for the trade, and retailers may, before long, be faced with the fanciest assortment of gift propositions ever submitted to their department.

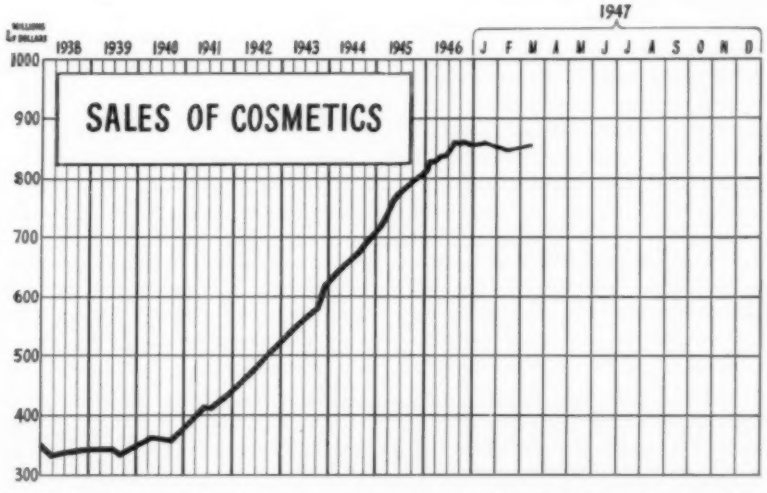
One Method That Works

Quite a number of people in the trade are noticing with great interest that a certain Fifth Avenue department store is going against the country-wide trend by showing steady increases in the business of its cosmetic department during each month of the first quarter.

Nobody seems to be sure just how this happened, but they do know that a number of policies which seem sensible and admirable have been quietly put in force in this store. While the store has nearly all its salesgirls on manufacturers' payrolls as demonstrators, it is store policy to employ no new demonstrators. As a demonstrator leaves the store, she is replaced by a girl fully employed by the store. These girls get a liberal salary, but must sell 10 times their salary. Above this figure they get a 10 per cent commission on everything sold, from a store pool. This pool is made up of manufacturers' contributions based upon the manufacturer's normal allowance for store selling. If he maintains a demonstrator, the sum for this demonstrator goes into the pool. If he pays 5 or 10 per cent for P.M's., this P.M. sum goes into the pool.

It is reported that manufacturers are not pressed to do anything that is not their normal policy, but only to contribute on the basis of their regular policy.

This store has published a complete catalogue of every product carried by



Retail sales of cosmetics for the twelve months ended with March 1947 amounted to $853,999,000. This compares with a total of $849,514,000 for the twelve months ended with February 1947 and with $828,388,000 for the twelve months ended with March 1946.

the store, including its price, where the product is carried in the department and the stock. The store has a strict policy that each girl must use the catalogue for any customer's inquiry, so that no sale will ever be lost through ignorance of the girl as to whether the product is carried by the store.

In addition to having one of the best reputations in the entire retail trade for stock records and a system of stock-keeping so that the store is never out of merchandise, the buyer of this particular store has also acquired quite a reputation for giving a friendly audience to every salesman who comes to this store, no matter who he is.

All of these factors may not add up to the remarkably good record of this Spring, but they are certainly worth studying, in contrast to the policy of many other well-known stores in stock-keeping, in buyer alertness to new products or new ideas, and in the ability of management to make sure that a store does not lose the sale of a product it carries either through laziness or lack of interest of the salesgirl.

Coordinated Sales And Service Plan

We never thought that we would see the selling methods which made Hoffman famous, when he was building his ginger ale and soft drink business, applied to cosmetics.

One cosmetic manufacturer is now engaged in applying this plan in the Bronx, Westchester and part of New Jersey. As we hear the story, the operation goes something like this:

For every 240 drug stores segregated in a territory, there will be the following plan for selling, delivery, window display and stock service. A company salesman will cover this group, taking orders and checking stock. He will be followed in regular routine by a company truck, which will make regular deliveries from stock carried on the truck and handled by the truck driver.

On the truck will be a window display man and, we have heard, a window display assistant. These men, under the plan, will attempt to organize a minimum of 6 windows a year, of one to two weeks' duration. The plan is supposed to coordinate selling, routine delivery from stock rather than on order, continuous route store service, and window display service.

If the company averages around $300.00 per store, this would mean an annual gross from this group of $72,000. If the salesman and the expenses for his car average 5 per cent of this, is the balance, that is, the cost of the truck and truck driver and the two service men limited to these 240 stores, too great an additional expense over normal factory shipping cost, or is there any possibility that this additional cost can be justified by superior window display, more frequent window displays and the stimulation of other store services, which would greatly increase volume?

Expensive Words

One of the things a number of perfume and cosmetic companies gained from the lush years is some truly magnificent show rooms and executive offices. Those companies such as Coty and Matchabelli are places to behold, and we hear that the new layout of Hudnut, when completed, will be a place to show foreign visitors.

These highly modern decorated places can undoubtedly be justified by large companies and will probably continue to appear to a somewhat lesser extent.

The demand for this sort of work has created an entirely new profession and as a result, a new vocabulary. Most executives, when they have an instinctive dislike for a color combination or a modest shrinking from ultra modern design, are apt to quail when the color dynamics consultant, or the functional design engineer, starts pouring out the words of his craft. These new words can suppress even the boldest spirits, but if you ever decorate your office, you will arrive at one firm conviction, and that is, brother, them words cost money.

The New Lady Esther

For some time there have been reports that Lady Esther was getting geared up for a completely new market approach.

The first sign that something is really happening at Lady Esther is the announcement of a strong and well planned promotion for their new face powder shade, Malibu Tan. The backbone of this campaign rests on a double page bleed spread in full color which appears in the June 30 issue of Life and is reproduced in full in the June issue of Beauty Fashion. Color is also scheduled in Mademoiselle, Charm, Seventeen and a large group of the moving picture magazines.

This summer promotion will tie in with other vacation items including Oculens Sun Glasses, and each company in this promotion will promote the product of the other under the name Malibu Tan.

Exclusively Drug Store Cosmetics

Carl Weeks once again offers the independent druggist and the drug chains an opportunity to prove that they are just as capable in building a volume and reputable standing for a class cosmetic in selective distribution as is the department store.

Drug stores have long complained at what they call discrimination in favor of the department store by class cosmetic manufacturers.

At the recent trade conference of the industry at the Waldorf this feeling seethed and bubbled underneath the composed speeches by trade leaders.

Introducing the new

KNOX Rx OVAL

the bottle that has everything!

Easy to Stock

A gracefully styled squat container, the Knox Ɽ Oval can be stocked in drawers or on shelves in larger quantities than ordinary prescription bottles.

Self-Advertising

The Knox Perma-Letter system fuses the druggist's name and phone number right to the glass itself in bright color. Can't wash off or rub off.

Handy at Home

The Knox Oval fits the shelves of any ordinary household medicine chest, however shallow. Also handily carried in pocket or bag.

Separate Directions

Typed directions for taking or administering the prescription can be pasted firmly to the convex side of the Knox Oval. This gives more room for detailed instructions.

For details of prices and deliveries, see your nearest Knox representative or write directly to

KNOX GLASS ASSOCIATES, INC., Knox, Pa.

Knox Group operating twelve modern plants strategically spotted throughout the United States

FIELD AND LABORATORY RESEARCH SOLVED AN UNUSUAL PROBLEM

About a year ago, an Armstrong customer came into our offices with an interesting problem.

"Why should a few jars of our product turn rancid in dealers' stores, while other jars, from the same fill, in the same lot, and in the same stores, remain all right?" he wanted to know.

After extensive research in Armstrong laboratories and in the stores in question, our laboratory reported: "Your trouble was caused by the way a few packages had been displayed. We found that in these stores window displays had been made where some of the packages were exposed to excessive heat.

"Your product contains a fatty constituent that is abnormally sensitive to heat from any source. Regardless of the type of container you use, if your customers will store your product in the warehouse, and display it on shelves where it will not be subjected to excessive heat from any source, you won't have further trouble."

Our customer decided he wanted the advantages of flint glass containers for customer appeal. He printed directions for the display of his product on the shipping containers. Complaints ended there.

Your glass packing problems may be very different from this one. But no matter what they are, whether chemical, engineering, production, legal, or package design, you can always be sure of getting the best professional service from Armstrong's unusually large and well-staffed service departments.

For full information about any of Armstrong's glass or closures, call your Armstrong representative. Or write direct to Armstrong Cork Co., Glass and Closure Division, 3806 Prince St., Lancaster, Pa.

At the same time department store executives have claimed that they are selling a substantially greater sales service to the manufacturer than either the independent druggist or the chain. They claim that in addition to the sales volume which they deliver, the department store, because of its great prestige with the public in a community, substantially assists the manufacturer in building a reputation for his product, and as this reputation is established, the drug store enters merely as a sales participant.

Now in impressive spreads in retail drug journals, Carls Weeks announces the new, "Pearls in Wine" line of dollar items at 40 per cent discount. In his advertising, Mr. Weeks rather bluntly dismisses the department store, claims priority preference by the woman shopper of cosmetics for the drug store and in blunt headlines states that his new line of "Pearls in Wine" cosmetics will be sold only to drug stores. He states that retail druggists have the same right to be selective as do department stores, and that this is the big chance of the retail druggist.

We heartily subscribe to that statement and applaud this opportunity for the retail druggist to prove that he is just as capable of initiating a new cosmetic line, of introducing it to the public and of helping to establish a following and a clientele for the manufacturer, as is the department store.

"Pearls in Wine" will be advertised nationally in color advertisements, and the magazines used will be Ladies' Home Journal, Movie Story, Motion Picture, True Confessions, Screen Romances, Modern Screen and Modern Romances. This looks to us like a clear-cut issue with a good line, a good name, a good house behind the product and forceful consumer advertising.

Now let us see what the druggists can do to demonstrate their claim that they are proportionally equal to a department store in offering the manufacturer the kind of service in selling that he feels he has been buying in much larger proportions from the department store.

Number One Asset

The industry's leading guessers had it all down in neat order, which companies would be taking the heavy bumps during this period and which would come through with flying colors. They are now admitting that some of their guesses were wrong.

We, ourselves, had some experiences of this sort.

At the recent, delightful cocktail party held by van-Ameringen-Haebler during the T.G.A. Convention we inadvertently found ourselves facing a certain manufacturer whom we had been avoiding, because we had firmly made up our minds that this very pleasant person had little opportunity of surviving the recent tornado. Much to our surprise, however, this small manufacturer seemed very cheerful and was certainly having an excellent time at the party.

Conversation soon developed the fact that while business was off, this manufacturer had received letters from the buyers of practically every one of his accounts. Most of these letters involuntarily assured him that they liked his line, that they liked his policies, and that they liked him, concluding that he was not to worry if orders were slow, that his line was going to stay in the store and would soon pick up.

In the hectic drive of selling and advertising, we very often forget the fundamental security and soundness in a business that establishes human relations with its customers and that acquires a good trade reputation. We venture to say that one of the strong, fundamental needs facing manufacturers today is good trade relations, and that many new manufacturers who have started up in the last four or five years are finding greater security from excellent trade relations than from results of consumer advertising expenditures and so-called consumer demand. We do not mean by this that the consumer's acquaintance with the product does not have substantial or necessary value. We do mean that fine trade relations is the number one asset.

Department Stores Do Over 50 Per Cent Milwaukee's Cosmetic Business

The 1947 consumer analysis of the Greater Milwaukee Market has just been published. This is the twenty-fourth comparative report of consumer buying habits in this metropolitan market.

In cosmetics and toiletries the department store still holds its dominant place as a shopping center with 53.38 per cent of the women making their cosmetic purchases there. This is about the eqivalent percentage of 1945-46 but shows a 10 per cent increase for department stores since 1944.

Independent drug stores are the place of purchase for 20.29 per cent of the women; chain drug stores, 13.79 per cent; variety stores, 6.50 per cent; house-to-house sales, 4.31 per cent and beauty parlors, .17 per cent.

The independent drug store receives most of the purchasers of drug products with 67.2 per cent; chain stores, 23 per cent and department stores only 8.6 per cent. There has been no appreciable change during last year in the percentage of women who purchase various kinds of cosmetics.

More women buy face powder than any other cosmetic. The percentage of purchases here reach 94.9 per cent; lipsticks, 85.4 per cent; rouge, 80.5 per cent; face creams, 78.3 per cent; nail polish, 66.3 per cent; deodorants, 77.5 per cent; liquid or cream hand lotion, 85.6 per cent; liquid mouth wash, 60.8

Department of Commerce Monthly Retail Trade Report

Retail sales of all kinds in drug and department stores showing the increase for the month of March 1947 as compared with the same period in 1946.

	Department Store	*Drug Store*		*Department Store*	*Drug Store*
Atlanta	+5	+19	Memphis	X	+2
Baltimore	+15	+6	Milwaukee	+9	+13
Birmingham	+10	+11	Newark	+11	+13
Boston	X	+6	New Orleans	+18	X
Buffalo	+8	+4	New York	+12	+7
Chicago	+8	+12	Philadelphia	+20	+5
Cincinnati	+15	+12	Worcester	+11	X
Cleveland	+7	+1	Providence	+6	+4
Dallas	-1	X	Saint Louis	+12	+8
Denver	+20	+11	Salt Lake City	X	+14
Detroit	+7	+21	Tulsa	X	-5
Indianapolis	+3	+4	Pittsburgh	+14	+3

SCIENCE...GUARDIAN OF QUALITY*

BERNARDIN
Metal Closures

At Bernardin, Science has increasingly taken command in doing things better and faster. Here scientific men, working in laboratories, have perfected machines and practices that often do in mere seconds and with micrometrical accuracy, what required hours to do crudely before. Bernardin closures today, represent literally a triumph of research and invention! Bernardin Bottle Cap Company, Evansville, Indiana.

* Pictured—*Checking accuracy of a finished Bernardin master thread die against template using an Optical Comparator.*

Since 1881—America's First Manufacturer of Metal Closures

per cent; permanent wave kits, 19.5 per cent; electric shavers, 22.9 per cent; brushless shaving creams, 26.4 per cent; regular shaving cream, 37.4 per cent; liquid shampoo, 68.7 per cent, a drop from 74.1 per cent a year ago; cream shampoo, 23.7 per cent; toothpaste at 79.2 per cent, has made a gain from 73.3 per cent a year ago and tooth powder 41.1 per cent, showing a decrease in popularity which runs as follows: 1946, 48.1 per cent; 1945, 49.4 and 1944, 55.4 per cent.

Reconversion, Not Recession

Stanley Marcus, executive vice-president, Neiman-Marcus, Dallas, disclaiming any pretense to clairvoyance or to being an economist, has nevertheless offered this simple, straightforward version of what goes on in business today. As he points out in another, unquoted portion of this same address, the facts can be applied both on the retailing and the manufacturing level.

"Just twenty-four months ago we were concerned with a word called 'reconversion.' Our economists wrote about it, industrialists took time off from war production to speak about it, newspapers editorialized about it—but few did anything about it. But as a result of our depression experience and our wartime experience one great new conception dawned on the American public. Full employment could mean full production and full production could mean a continuance of national prosperity. But came the end of the war and few of the dire predictions of the economists materialized. Employment receded very little, national income continued to soar and even exceed wartime peaks. Reconversion turned out to be a series of strikes instead of what we had imagined it might be. The non-striking public expressed its indignation, price increases followed wage increases, corporate profits aided by tax reductions reached an all-time high. It appeared as if we had dodged the problem of reconversion. Just about then some of the wiser heads began to talk about a 'Recession.' Wall Street discounted high earnings on the grounds that stocks were over-priced in line with future earning capacity and the stock markets tumbled. Commodity markets didn't follow stocks due to a combination of bullish factors including world shortages, lack of margin requirements that encouraged speculation, government subsidies, and unfilled consumer demand for a variety of goods.

"Wall Street's judgment of last September has been borne about by the drop in most corporate profits for the first quarter of this year. We now have the combined phenomena of one of the greatest national incomes in our history, almost the greatest number of people gainfully employed in our history, the largest production in practically all fields of manufacture in our history—and a recession heralded as being just around the corner. We hear the *demand* for *lower* prices on the part of the consumer and we hear the *explanations* of price *increases* by our manufacturers.

"As retailers we have seen our inventories increase because consumer demand has not moved the same number

The Cosmetic Trend

From what can be seen from the recently released annual analysis of the 1946 Merchandising and Operating Results of Department Stores and Specialty Stores, made by the Controllers Congress of the National Retail Dry Goods Association department and specialty store toilet goods counters have again failed to make equal progress with the remainder of the toilet goods outlets of the nation. While the national average sales rise was 5.6 per cent, as reported in the April issue of DRUG AND COSMETIC INDUSTRY, department store and specialty toilet goods counter sales rose 3.0 per cent only. Moreover, the number of transactions shows a decline of 2.0 per cent against 1945, while sales volume to total store volume was 2.7 per cent against the customary average of 3.0 which the counters have maintained through the last years.

It is difficult to allot any specific responsibility for this condition and it must be taken into consideration, of course, that the retail merchandising picture of the nation has undergone changes during the two years since the end of the war. However, the proportional decline of one of their most constant departments is giving some concern to the top executives of stores. The word is passed down for greater effort to return toilet goods to their old standing.

There is some evidence that toilet goods have been "squeezed" through the year and have not found as much attention as they deserve. Less space has been given to the toilet goods counters than in the past, as is evidenced by the fact that the sales ratio per square foot of selling space was higher in 1946 than in 1945, although sales declined proportionally and not so many customers were served. Fewer sales were made per sales woman. Inventories were generally better than during the preceding year. Advertising support was approximately the same as in 1945, although slightly higher proportionally because of the lowered response.

Comparing the store groups of various size the sales performance was best generally among the very large stores with an average increase of 5.0 per cent while the remainder just managed to break even or added not more than an average 2.0 per cent. Specialty stores with a volume exceeding $1,000,000 lost 3 per cent in sales and 7.0 per cent in transactions.

The fact that this is the second year in succession that department stores and specialty stores have not responded as satisfactorily as other outlets to the rising curve of toilet goods sales will make it advisable for cosmetic manufacturers to study their market and, if necessary, make a reappraisal of the value of individual outlets for their future expansion policies.

Fundamentally department store and specialty store toilet goods counters have not lost their attraction to the consumer. The question, however, must be asked whether the recent tightening up of assortments and the deliberate cutting down on variety, that has been practiced by department store buyers, answers best the temper of the purchasing public. As sales are rising in other directions the answer obviously is that they are not.

It will take another year to determine whether the cosmetic industry is dealing in this weakening of its formerly most progressive outlet with a trend, or whether it merely constitutes a short term shift, resulting from the general regrouping of consumers following the economic readjustments of the post-war period.

of units as we anticipated back last fall. We have received 99 percent of our orders as compared with 60 percent a year ago. Because of price increases our dollar sales do not reflect the decrease in transactions. *Despite* the current full employment, *despite* the high national income, units have decreased in varying degrees in all types of retail distribution. This can be accounted for by two factors—first, net income after taxes and increases in the cost of living does not permit expenditures at wartime rates, and second, and of considerable importance, there has developed a growing feeling of insecurity among many classes of buyers.

"The laws of supply and demand were suspended to some degree during the war when prices were under control, but we are about to witness a re-expression of them sometime within the current year. A decrease in units distributed plus an increase in production can mean only one thing—and that is oversupply. And oversupply in a competitive market can mean several things. It can mean a drop in the price structure of various commodities and manufactured articles so affected. It can mean the elimination by competition of those firms, both retailers and manufacturers, least able to weather the financial storm or the tempest of competitive quality. That process, Ladies and Gentlemen, is known in the range country as 'separating the sheep from the goats.'

"This process of reconversion which we now label as a recession is not to be taken with too much alarm. Certainly we could not expect a permanent continuance of the wartime tempo. A decrease in volume of 10, 15, or 20% in itself is not a calamitous matter. The decrease in business is to be feared only because of its general effect on our program for full employment and full production. That program must be regarded as the fundamental obligation of our free enterprise system. Full employment means full production. Full production means lower prices, larger markets, and a high state of prosperity."

The Cashmere Bouquet Beau-Cake package was given special mention for outstanding functional design by the jury for the presentation of the Charles S. Welch Memorial Award. The package, which was designed by von Miklos, has a sponge compartment right in the case.

The Salesman Returns

There are a great many salesmen in this trade who have never had a chance to show the sales manager or top executive whether they are stars or hams.

Unless they had an established sales record before the war, the ham and the star had been pretty much on an equal footing.

However, times are changing. Just the other day the president of one of our largest companies called in the sales manager and said to him, "Who is this man named so-and-so?" The sales manager told him he was a comparatively new man who had been in his territory for about a year. The president then said, "I have been looking over the last sales report and this fellow seems to be running ahead of every one of our salesmen,—yesterday, 9 calls, 8 sales, $1600."

In talking to a friend a little while later the sales manager remarked that we were certainly getting back to the good old days when salesmen would soon be able to tell the president of a company what to do with his hat, and get away with it.

Manicure Preparations

Sales of manicure preparations totaled $21,500,000 in 1946, it was pointed out by an article in the Department of Commerce publication, Domestic Commerce. This figure which is Beauty Fashion's estimate shows a sizable increase over the 1943 total of $17,000,000, but this was due mainly to the fact that early in the war production of such manicure items as liquid and paste polish and nail whitener was limited because of the shortage of raw materials.

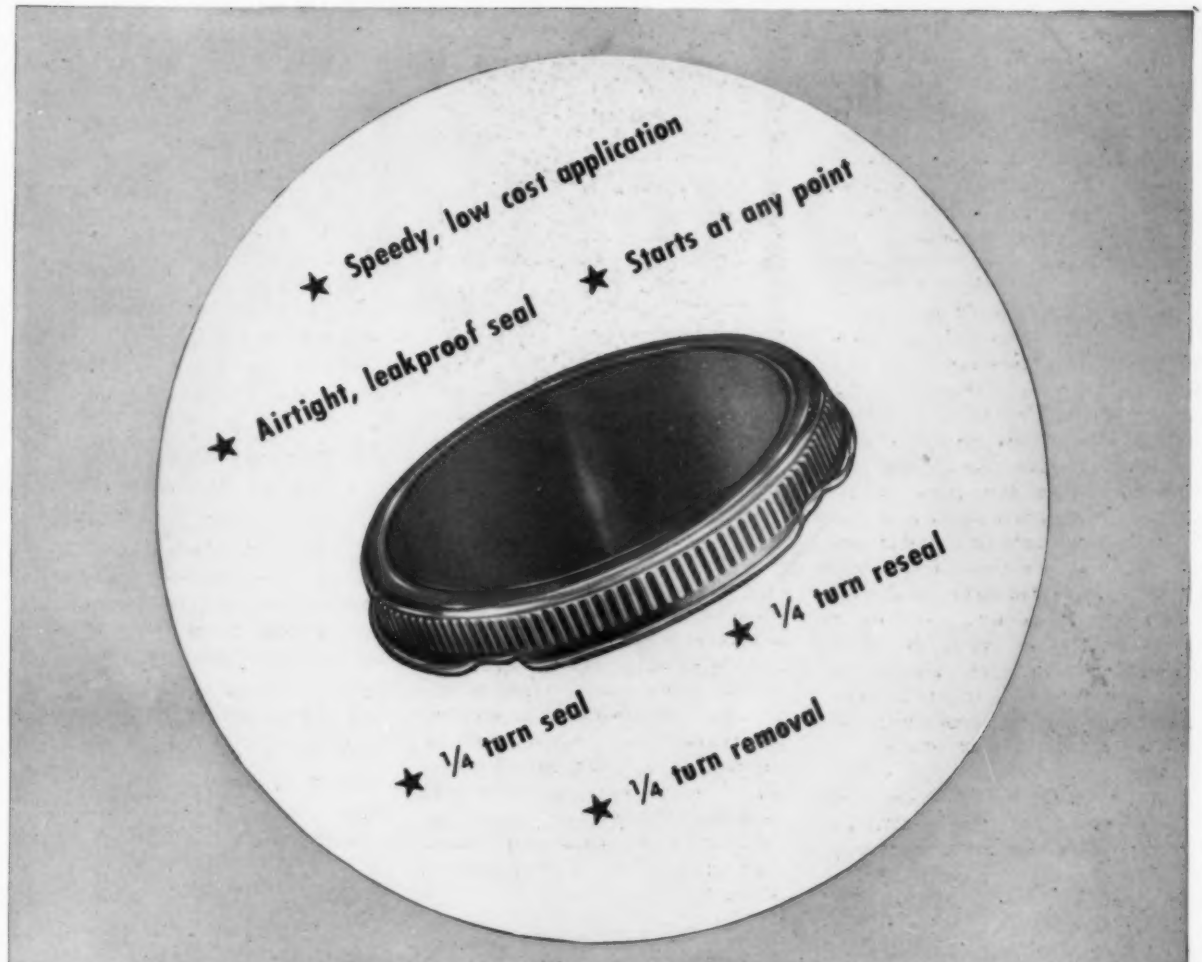
The 10 cent bottle is still the most popular size for most nail preparations, but in recent years, women have made more and more purchases of larger sizes. Total sales by manufacturers have also increased as a result of expanding postwar markets in foreign countries.

The 5 and 10 cent stores led all others in sales in 1945, it was pointed out, but the lead held by the syndicates was smaller than in 1941. Drug and department stores respectively followed 5 and 10 stores in 1945 sales.

Popularity has shifted from clear lacquers or pinks to vivid and dark shades, with even green and black enamels occasionally worn. Two kinds of nail lacquer are sold—clear and cream. The cream polish leads in popularity. Age is apparently important, buyers under 25 years of age account for the largest percentage of customers according to sample surveys. Only slight variations among income groups were noted.

Dana Perfumes is introducing Emir perfume, an exotic, mysterious fragrance, beautifully packaged, which is also available in cologne.

Linnea has produced an interesting set for the teen-ager consisting of bubbles, cologne and a bar of Swedish complexion soap, all in the Linnea flower fragrance.



A simple 1/4 turn seals your container with an Anchor AMERSEAL Cap

IF you've never sealed packages with Anchor Amerseal Caps, you've never known the ease and speed with which they can be applied. First of all, they start at any point on the container finish—no matching or adjusting to threads is necessary. Then a simple, fast ¼ turn by hand, hand chuck or machine and the job is done. Specially formed lugs, engaging the *underside* of the glass threads, draw the cap down and compress the liner in an even, airtight contact with the container finish.

The Anchor Amerseal Cap is adaptable to a wide range of products requiring an airtight, liquid-tight seal—and particularly those used often and over a period of time. And it's especially good for sealing oily, sticky or gummy products. Cap contact is made only where each lug touches the glass threads. This, plus the lugs' knife-like action, makes it easy to break the contact and open the package.

Anchor
CONTAINERS and CAPS

PRODUCTS OF
ANCHOR HOCKING GLASS CORPORATION
LANCASTER, OHIO

Tune in "Crime Photographer" every Thursday evening, entire Coast-to-Coast Network, CBS.

Lustron

A MONSANTO PLASTIC

for

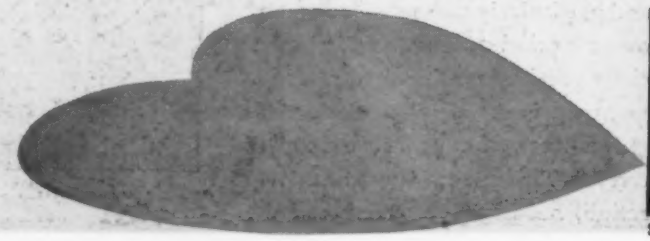
sentimental seasons

Whatever the occasion, sparkling Lustron packages create atmosphere that makes for faster sales. This versatile Monsanto polystyrene offers the package designer unlimited opportunities for attractive eye-appealing design and embodies the qualities essential in a protective container.

Check these Lustron packaging qualifications with your product in mind:

1	Inherent color with a rainbow range to choose from—both clear and opaque.
2	Superior resistance to chemicals, acids and moisture.
3	Adaptability to high speed molding techniques offers numerous possibilities in shape, surface and size—at low cost.
4	Light weight—less than half as heavy as glass.
5	Dimensional stability that assures freedom from warping and permits the design of reliable friction—fit closures.
6	Freedom from taste and odor.

Amos Molded Plastics Corp.
for Alden Plastics Corp., N.Y.



You can capitalize on these qualities by putting your product in Lustron. Get full information from your box supplier or direct from: MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield 2, Massachusetts.

Lustron: Reg. U. S. Pat. Off.

MONSANTO
CHEMICALS — PLASTICS

SERVING INDUSTRY . . . WHICH SERVES MANKIND

ARE YOU Proud OF YOUR Product?

A Quality Product deserves a quality bottle—and that's the kind that SWINDELL produces.

"Quality" is no empty word. It means "beauty of design" that lends glamour to your product—

It means "sturdiness and durability" that protects you against undue shipping loss—

It means "uniformity"—

It means "dependability".

Whether you need a stock or a private mould bottle, machine or hand-made, SWINDELL standards of quality add lustre to your product.

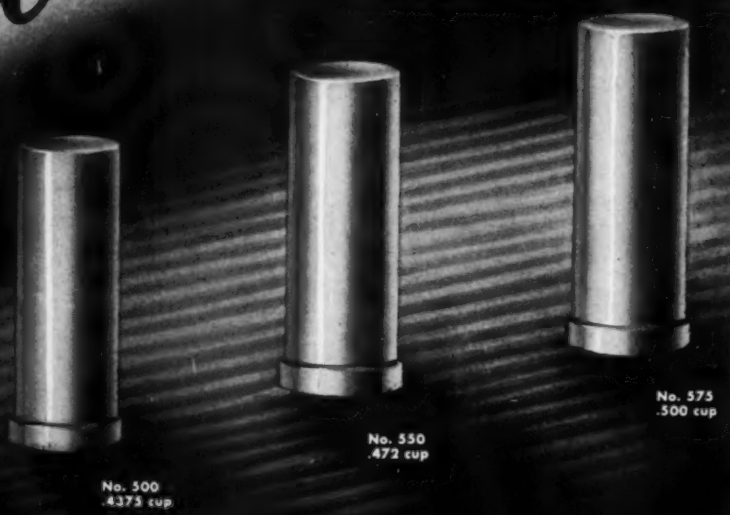
At your service!

SWINDELL BROTHERS, Inc.

200 FIFTH AVE., NEW YORK ★ BALTIMORE 30, MARYLAND ★ ROBERTO ORTIZ • HAVANA, CUBA

Rich Low BRASS

SWIVEL LIPSTICK CONTAINERS



"Fashioned Like Jewels"

THE ULTIMATE IN QUALITY

- De Luxe polished Rich Low brass — baked lacquer finish
- Free wheeling mechanism — It is impossible for the filler to swivel up while the cap is on
- "Click-Tite" closure*

PHONE, WIRE OR WRITE FOR SAMPLES

BRODER INDUSTRIES

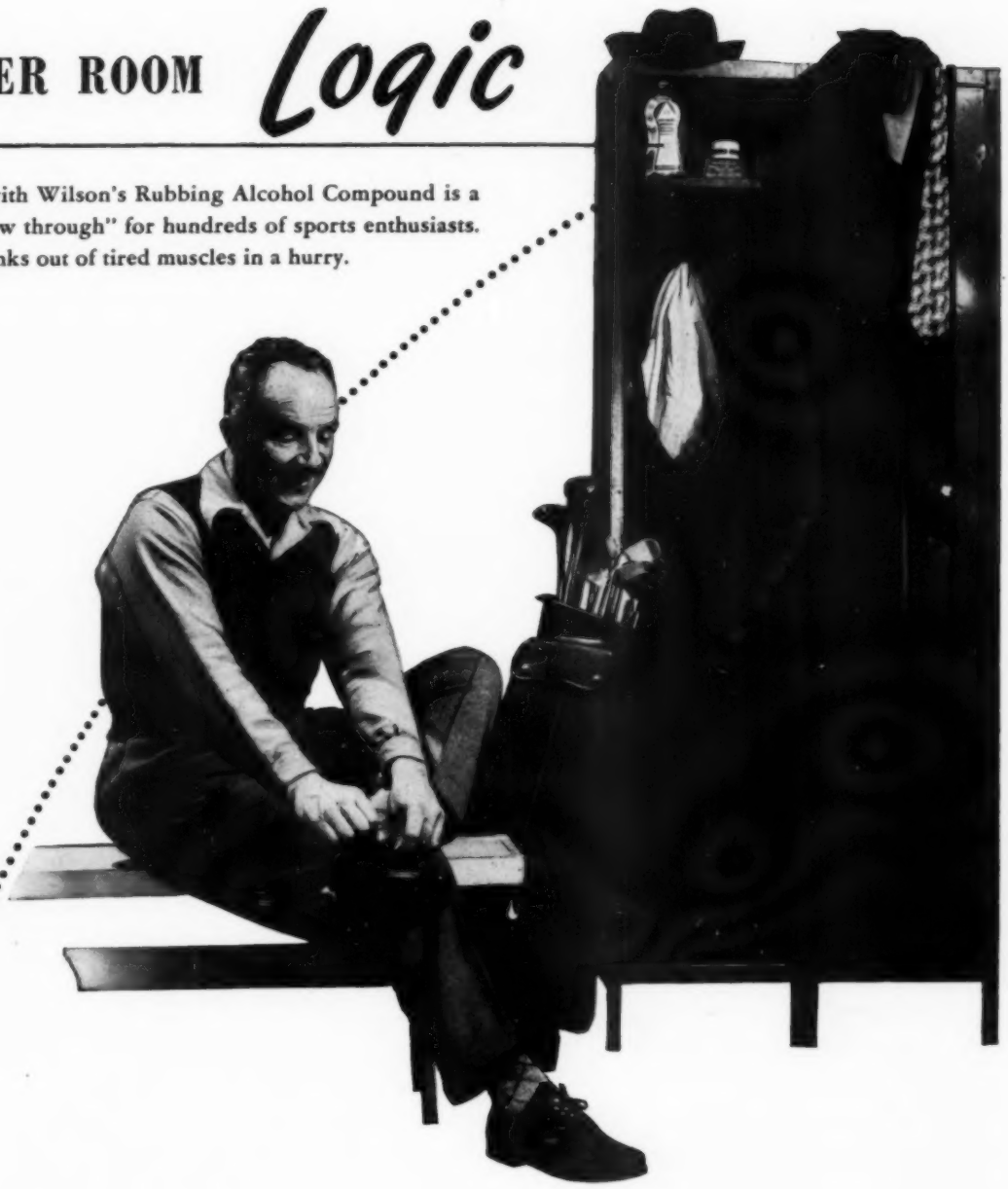
INCORPORATED

167 WEST 64th STREET, NEW YORK 23, N. Y. • TRafalgar 7-0092

*Patents Pending

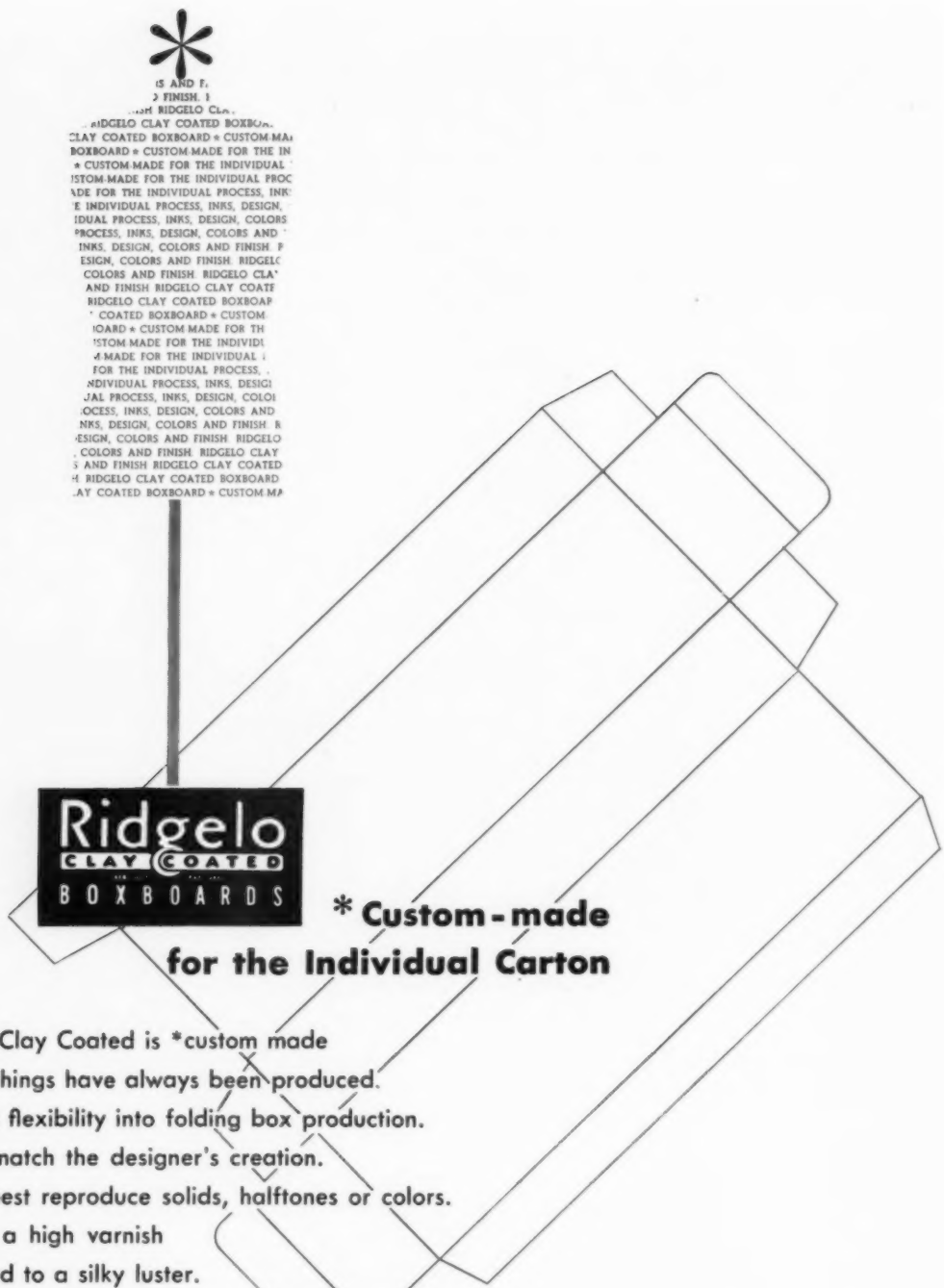
LOCKER ROOM *Logic*

A brisk rub with Wilson's Rubbing Alcohol Compound is a favorite "follow through" for hundreds of sports enthusiasts. It takes the kinks out of tired muscles in a hurry.



Because the closure is so important in the packaging of a fine product, the Wilson Drug Company of Chicago, Ill. has followed through with the Crown Screw Cap. This is the cap with the *patented* Deep Hook Thread, which gives greater sealing pressure with any given amount of application force. Liners of proper material and thickness are another good feature. Crown Cork & Seal Company, Baltimore 3, Md., *World's Largest Makers of Metal Closures.*

... CROWN CLOSURES



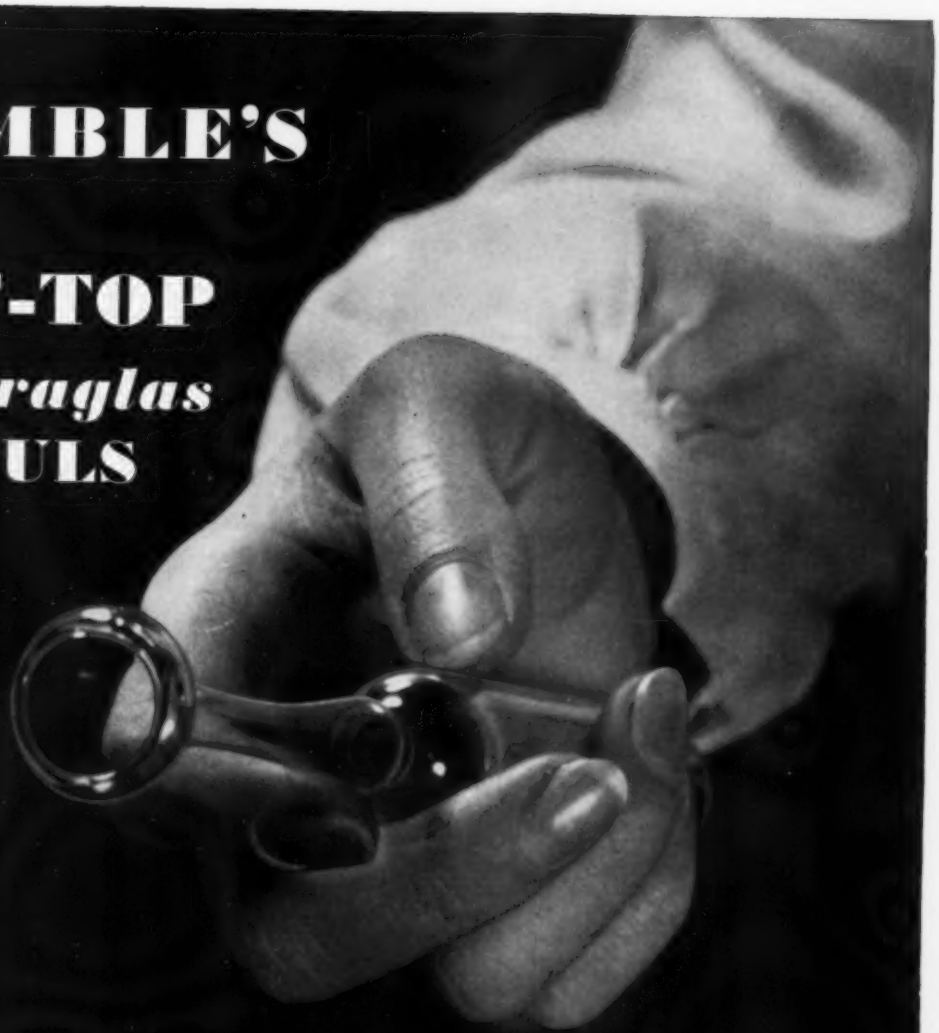
*** Custom-made for the Individual Carton**

The way Ridgelo Clay Coated is *custom made
is the way good things have always been produced.
Clay coating puts flexibility into folding box production.
Light-fast colors match the designer's creation.
Specific finishes best reproduce solids, halftones or colors.
Surfaces support a high varnish
or may be brushed to a silky luster.
These Ridgelo features mean better carton quality control,
more uniform deliveries from letterpress or litho.
Specify Ridgelo for your cartons.
A little extra cost brings a lot of customer approval.

MADE AT RIDGEFIELD, N. J., BY LOWE PAPER COMPANY

REPRESENTATIVES:
H. B. Royce, Detroit • Norman A. Buist, Los Angeles • A. E. Kellogg, St. Louis • Philip Rudolph & Sons, Inc., Philadelphia

KIMBLE'S
New
TUF-TOP
Neutraglas
AMPULS



The top is tough. Enlarged opening with extra heavy glazed rim brings new freedom from chipping.

KIMBLE GLASS

The Visible Guarantee of Invisible Quality

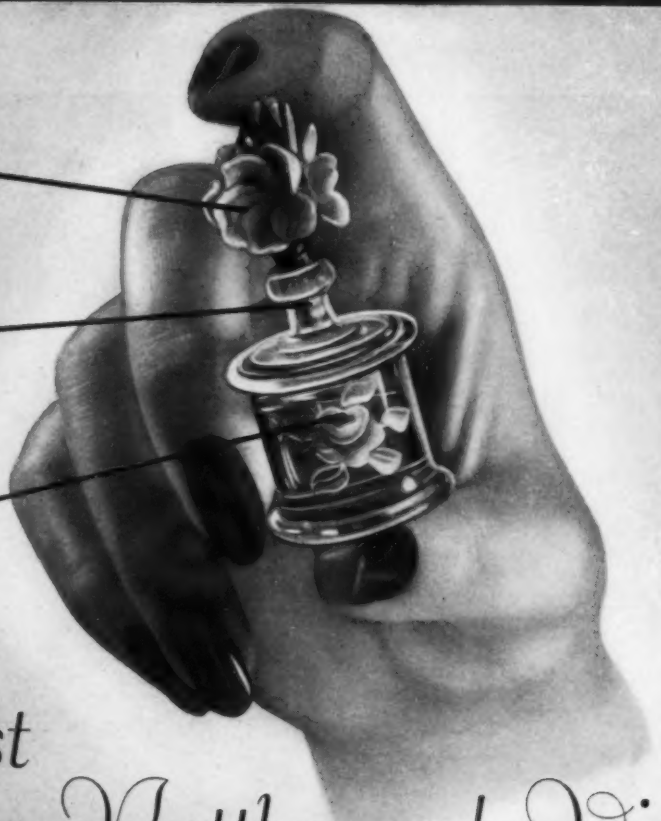
Vineland, New Jersey

DIVISION OF OWENS-ILLINOIS GLASS COMPANY

DECORATIVE STOPPER (Patented) formed of tiny, colored sea shells delicately shaped into form of a flower.

"THREAD-LOK" stopper-applicator, exclusive with Glass Industries, prevents leakage and evaporation. (Patented)

FLORAL DECORATION hand applied and deftly executed, adds beauty and distinction.



America's finest Miniature Bottles and Vials

At last, after years of restricted production, you can now obtain these beautiful, distinctive miniature perfume bottles in a full range of shapes, and in sizes from a few drops to 1 oz. Made entirely by hand by master glass blowers, we consider them the finest of America's miniatures. Exclusive designs can be created and produced on special order. Write for catalogue today.

PATENTED SCREW STOPPER . . .

All Vials and Miniatures feature our exclusive, patented leak-proof, air-tight stopper-applicator.

INTERCHANGEABLE SCREW-STOPPERS

2 sizes available. This is our patented, exclusive leak-proof, air-tight stopper-applicator. They can be had in assorted colors, also "metallized" with gold or silver finish.

G.I.I. FUNNELS

These tiny funnels, available in crystal or colored glass, can actually be used for filling our vials and miniatures.

BOUQUET FLORAL STOPPERS (Patented)

Made of tiny hand-painted shells in beautiful pastel shades as shown above. Fit any style bottles.

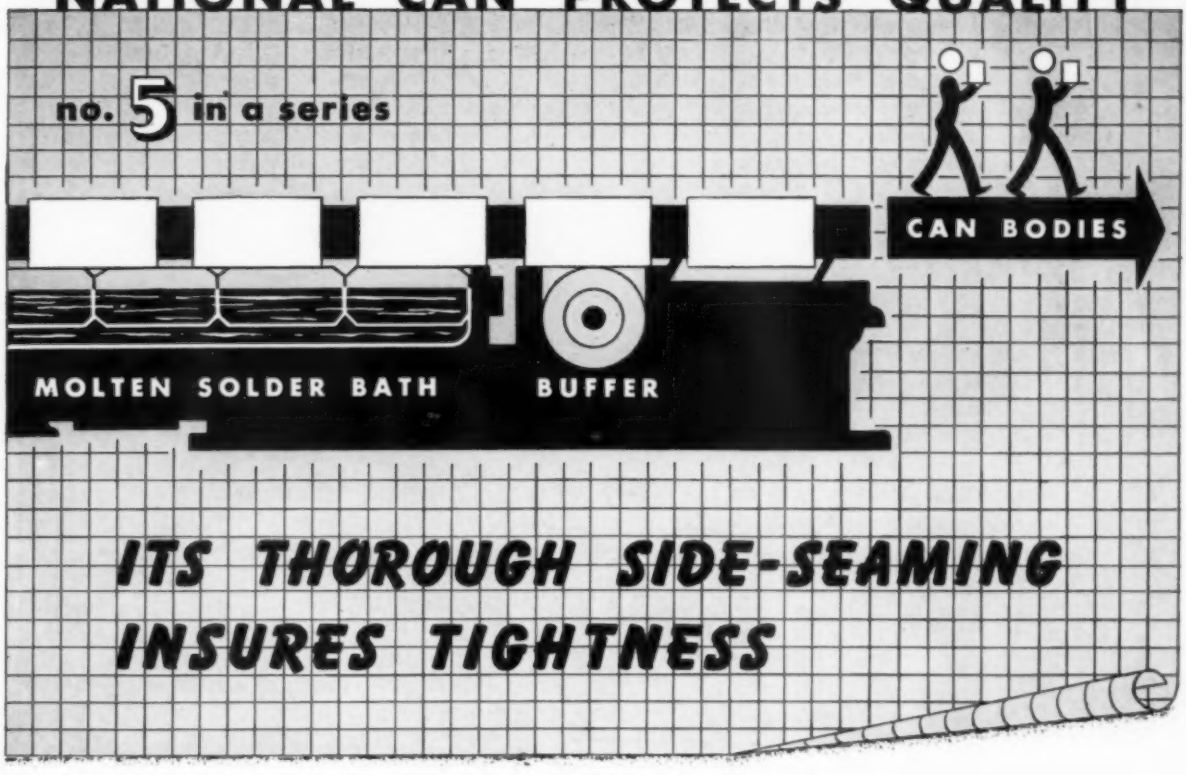
GLASS INDUSTRIES INCORPORATED

DESIGNERS
10 West 33rd Street

GI

MANUFACTURERS
New York 1, N. Y.

NATIONAL CAN PROTECTS QUALITY



As soon as a can body is formed, it is conveyed to a soldering machine. Here its side seam is soldered by contact between seam and rolls revolving in a bath of molten solder.

In the case of National Can manufacture, thoroughness includes precision preparation of solutions, careful and constant control of solder bath temperatures using correspondingly lower temperatures for soldering enameled cans than for plain cans.

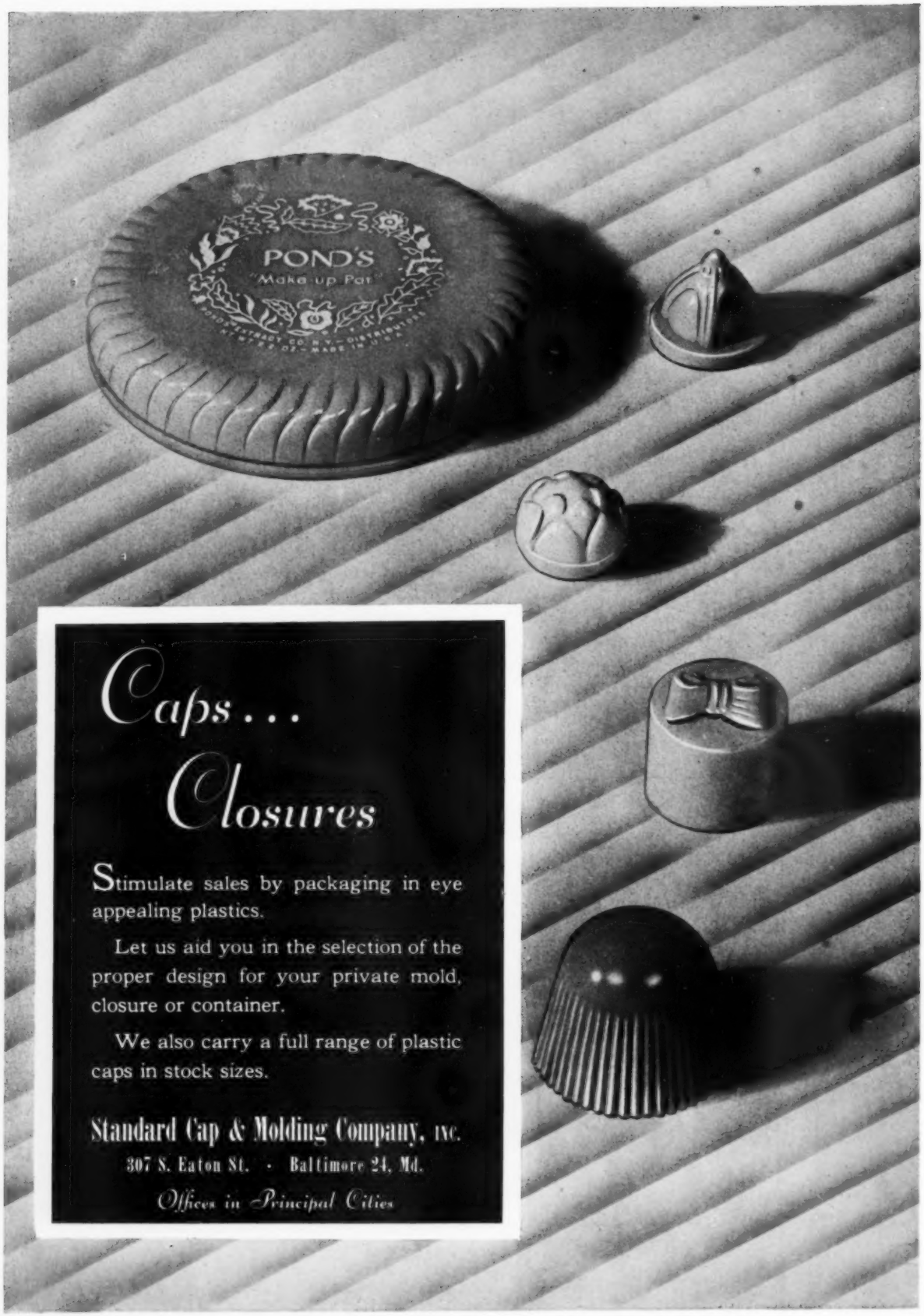
In National Can side-seaming, cleanliness inside the can is accomplished by complete removal of all deposits acquired during these operations. Thus a clean, tight can proceeds to the next major steps, flanging, double seaming and testing.

5057

NATIONAL CAN
CORPORATION

Executive Offices: 110 EAST 42nd STREET, NEW YORK 17, N. Y.

SALES OFFICES AND PLANTS IN: BALTIMORE, MD. · CHICAGO, ILL. · HAMILTON, OHIO · BOSTON, MASS. · INDIANAPOLIS, IND. · MASPETH, N. Y. · McKEESPORT, PA. · ST. LOUIS, MO.


POND'S
"Make-up Pat"
Caps . . .
Closures
Stimulate sales by packaging in eye appealing plastics.
Let us aid you in the selection of the proper design for your private mold, closure or container.
We also carry a full range of plastic caps in stock sizes.
Standard Cap & Molding Company, Inc.
307 S. Eaton St. · Baltimore 24, Md.
Offices in Principal Cities

New Perfection
DROPPING PARTS

Add The FINAL TOUCH

to

PRODUCT APPEAL

The dropper illustrated is fitted with a non-rolling, extra depth, Bakelite cap with thick flange rubber part and Saftee ball glass.

THAT FINAL TOUCH which creates appeal and assures customer satisfaction is provided by New Perfection dropping parts. Consistent cleanliness and careful inspection prevent the possibility of prejudice against your product due to poor quality, non-functioning droppers. Your carefully compounded preparation is sure to be at its best when dispensed by New Perfection dropping parts.

CAPS—in various sizes—either Plastic or Metal.

RUBBER BULBS—in many styles. Non-swelling AMEKINE for oily preparations. Natural rubber for general use.

DROPPER GLASSES—in any style or length. Plain or *Calibrated in color* to mark dosages.

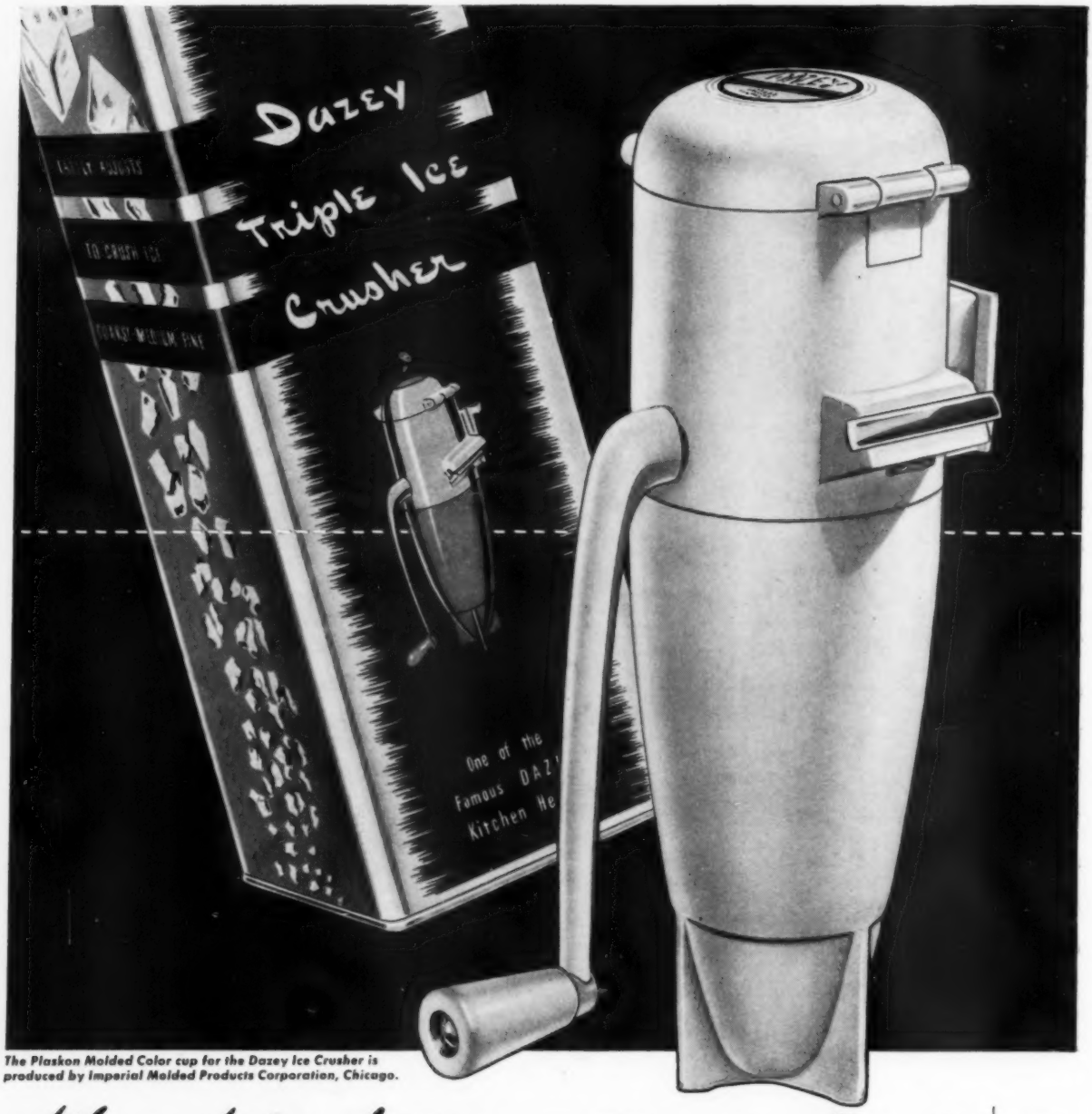
DROPPER PARTS—*to fit the customer's bottle*, or in combination with our New Modernistic bottles—in Amber, Blue, Green or Clear glass. Sizes—2 cc, ⅛, ¼, ½, 1 and 2 ounce.

Write for Samples and Quotations

PENNSYLVANIA GLASS PRODUCTS CO. INC.

"GLASS GOODS OF THE BETTER KIND"

428-432 NORTH CRAIG STREET . . . PITTSBURGH (13), PA., U. S. A.



The Plaskon Molded Color cup for the Dazey Ice Crusher is produced by Imperial Molded Products Corporation, Chicago.

It's a daisy! It's a Dazey!

It's Plaskon Molded Color!

In the well-known line of Dazey household utility products, one stands out in particular—the gleaming, colorful Dazey Ice Crusher.

Plaskon Molded Color is used for the ice cups in this unit, permitting gay red, green, yellow and black combinations with other materials in the complete crusher assembly.

The efficient use of Plaskon Molded Color by Dazey is another example of how this versatile plastic material can help manufacturing and sales programs. Once the product mold is established large numbers of duplicates can be turned out quickly and economically, each molded article absolutely true and identical with original specifications. Plaskon molding compounds have distinctive features that give them widespread application in the household appliance, electrical, cosmetic, drug, garment and many other fields. We shall be glad to help you adapt the many advantages of these versatile materials to your manufacturing and merchandising needs. Write for free illustrated book showing many applications of Plaskon* products.

PLASKON
TRADE MARK REGISTERED
MOLDED COLOR

* Reg. U. S. Pat. Off.

PLASKON DIVISION
LIBBEY•OWENS•FORD GLASS COMPANY
2110 Sylvan Avenue • Toledo 6, Ohio
In Can.: Canadian Industries Limited, Montreal, P.Q.

No. A-7314, ideal container for men's toiletries

FOR BRISK SALES . . .

Choose the container that's exactly right for your product

The *right* container—a handsome, convenient bottle like the one illustrated—can mean extra sales for your product . . . and lowered costs for you!

In the Duraglas drug, chemical and toiletry line there are over 1400 different sizes and shapes. The right container for your product is almost certain to be among them. Choosing standard containers assures you economy in original cost and on your filling line. And the wide Duraglas selection—plus *your* label—gives your container *individuality!*

Examine the standard Duraglas container line. Every bottle is manufactured according to the most exacting glass making standards. They assure you maximum dependability and efficiency.

Duraglas TRADE MARK REG. U. S. PAT. OFF. CONTAINERS—Protectors of Quality

OWENS-ILLINOIS GLASS COMPANY, TOLEDO 1, OHIO Branches in Principal Cities

The "Champ"

is a GLAMOUR GIRL

A COMBINATION THAT CLICKS WITH THE CUSTOMERS

..... **EFFICIENCY PLUS BEAUTY**

These same qualities are responsible for Meritseal's appeal. Many of the nation's leading cosmetic manufacturers have selected Meritseal as a closure for their products, because of its trouble-free application on the production line and the way it gives a positive, air-tight seal. They like Meritseal's beauty too . . . the trim, clean cut lines and gay colors . . . and they like Meritseal's price. Volume manufacture and advanced fabricating processes enable us to effect production economies that mean worthwhile savings to users of Meritseal.

Your request will bring samples and full information promptly.

MeritSEAL—

CROWN CORK SPECIALTY CORP.
Division of
Crown Cork & Seal Company

MAIN OFFICE: DECATUR, ILL. • NEW YORK: 60 EAST FORTY-SECOND STREET • CHICAGO: 106 EAST CHESTNUT STREET
WESTERN REPRESENTATIVE: WESTERN CROWN CORK & SEAL CORPORATION . . . SAN FRANCISCO . . . LOS ANGELES

■ This impulsive lady buys ¾ of all goods sold at retail. She decides *what brand* at the point-of-sale. There—it's up to your *package!*

Conversion—1947 style

LEADING MERCHANDISERS are alert to changing conditions. They know that with increasing competition for shelf and counter display—with the rapid growth of self-service retailing and "impulse buying"—*selling at the point-of-sale* TODAY has become increasingly a function of the package.

They call upon Ritchie to produce *standout* packages that attract consumers, arouse interest, and give a quick, convincing impression of product quality.

They call upon Ritchie to produce millions of such packages *on time—at low unit cost!* And *in this* Ritchie does not fail them.

Ritchie has worked 81 years, developing the "know how," the specialized facilities and trained personnel that meet these requirements.

WAY TO INCREASED SALES. Let Ritchie help you develop a package that meets the increasing challenge of self-service retailing. A practical, production-planned package that instantly identifies, fully protects and conveniently dispenses your product. Easy to fill or pack—to handle, to stack or display—but above all an attractive, SELLING package.

A good product. Strong advertising. An effective package . . .
The Eversharp C. A. Pen package—by Ritchie.

Never the Power

Underestimate of the Package!

W. C. Ritchie and COMPANY
8223 Bellaire Avenue • Chicago 17
★ SET-UP PAPER BOXES
★ FIBRE CANS
★ TRANSPARENT PACKAGES

NEW YORK • DETROIT • LOS ANGELES • ST. LOUIS • MINNEAPOLIS • MILWAUKEE • PITTSBURGH
PORTLAND • SEATTLE • MIAMI

Make Your Package

Exclusively Yours

with a Private Design Cap

TO GIVE your package a fresh, distinctive appearance that will help fix it in customers' memories, top it with a custom-created Armstrong's Artmold Cap. The three designs shown here may suggest ideas for accenting the exclusive character of your luxury trade package and giving it a sales-stimulating individuality that cannot be achieved in any other way.

Once selected, your Artmold Cap design is yours alone. For extra beauty, it can be molded in an eye-attracting color of your own choice. Get design suggestions and cost estimates, including mold costs, by sending us a sample or drawing of your package. Write Armstrong Cork Company, Glass and Closure Division, 1906 Prince St., Lancaster, Pennsylvania.

ARMSTRONG'S *Artmold* CAPS
PLASTIC

Bottles *for bubbles?*

Carr-Lowrey containers bring added appeal to products for beauty baths. The experience and specialized skill, gained through 58 years of close association with the cosmetic industry, enables Carr-Lowrey to supply the finest in cosmetic glassware in either private mold containers from your own design or from our wide variety of stock items.

CARR-LOWREY GLASS CO.

Factory and Main Office: BALTIMORE 3, MD. • *New York Office:* 500 FIFTH AVENUE (18) • *Chicago Office:* 1502 MERCHANDISE MART (54)

OPAL JARS • HANDMADE GLASS BOTTLES • MACHINE MADE FLINT GLASS BOTTLES

If you want label economy...

One of the advantages of Lusteroid vials and tubes is the savings on labeling costs. There are no labels to affix because your name and sales message can be printed as an integral part of these modern plastic containers. What's more—there never can be any doubt of the contents because this identification is on to stay.

Lusteroid's light weight effects savings in packaging and shipping, too.

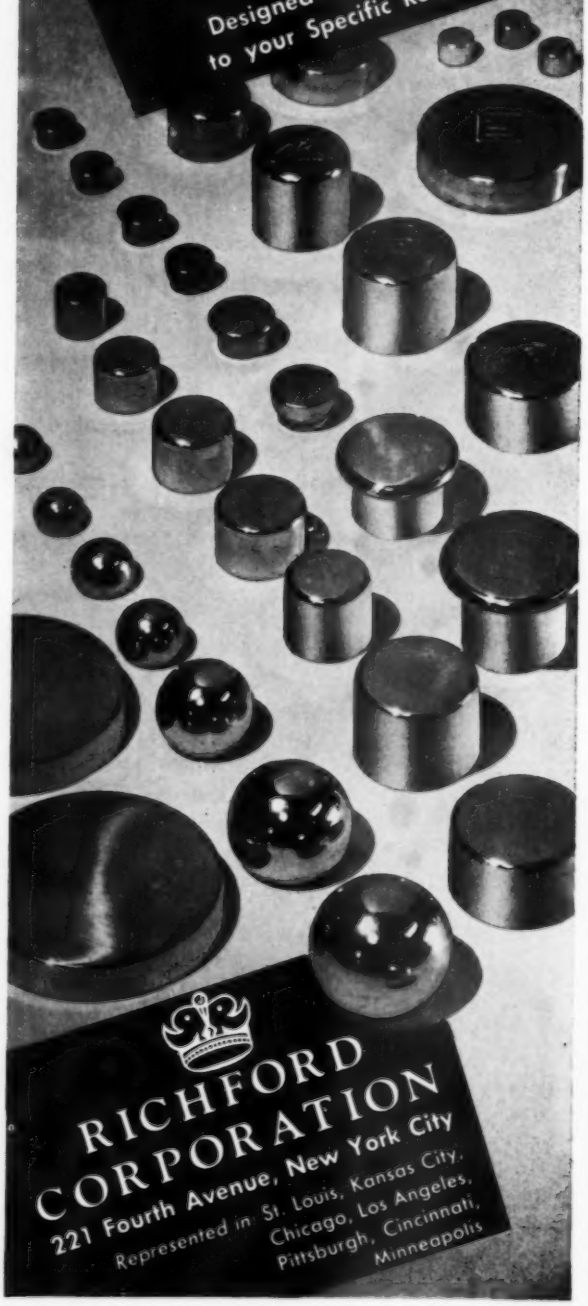
Other advantages include protection with visibility and brilliant coloring. Sizes from ¼ to 1¼ inches in diameter and lengths up to 6 inches. Cork, slip-on and screw-cap closures. Write for complete details.

LUSTEROID CONTAINER CO., Inc.
Formerly Lusteroid Division of Sillcocks-Miller Company

Office and Factory
10 W. PARKER AVENUE, MAPLEWOOD, N. J.
MAILING ADDRESS: SOUTH ORANGE, N. J.

Top off YOUR BOTTLE OR JAR *with a* RICHFORD METAL CLOSURE

Any Size *Plain or Embossed* *Any Shape*
or
Designed and Manufactured to your Specific Requirements



RICHFORD CORPORATION
221 Fourth Avenue, New York City
Represented in St. Louis, Kansas City, Chicago, Los Angeles, Pittsburgh, Cincinnati, Minneapolis

PRECISION-MADE "fitments"

to your Specifications

SCIENTIFIC perfection is your assurance with every dropper no matter what your specifications are.

We have successfully helped many manufacturers design and execute complicated "fitments" for Serums, Vaccines, Toxins, Medicines, Chemicals and Vitamins and we can, without hesitation, work out your dropper problems.

Expert workmanship and the finest materials assured in every dropper. All fitments are completely assembled. Prompt delivery. Send samples and specifications for quotations.

A Dropper to fit Your Every Need!

totus PHARMACEUTICAL LABORATORIES

70 E. COULTER ST. PHILADELPHIA 44, PA.

But WHAT WE CAN DO FOR **You**

Our customers are the blue chips of the jewelry and cosmetic world. A fancy paper box, designed and produced by BARNETT can go a long way toward taking *your* product off the shelf and into the home where it belongs.

Let's get together and talk it over.

SAMUEL Barnett COMPANY
TURNER & MASCHER STS.
PHILADELPHIA 22, PA.

For Four Generations, Manufacturers of Distinguished Paper Boxes for Distinguished Products

Immediate Delivery on BIOLOGICAL RUBBER STOPPERS and RUBBER BULBS

We offer immediate delivery on all types of biological rubber stoppers and rubber bulbs. Orders for private mold rubber stoppers executed with unusual speed.

You can rely on PLASTIC for dependable quality and a completely satisfactory source of supply.

Write for prices and full information on our service.

Plastic
ASSEMBLED PRODUCTS COMPANY
GENERAL OFFICES: 1149 Watson St., Baltimore 2, Md.
PLANTS AT: Baltimore and Elkton, Md.

DISTINCTIVE DRESS

CUSTOM-MOLDED

by Norton . . .

in rich, glowing plastics

for HIM

for HER

● Containers and covers like these fitting backgrounds for the famous names they bear. In richness, beauty and dignity, they have a "pick-me-up-and-take-me-home" appeal that sells discriminating buyers at America's luxury counters.

Today more and more of the customers are men, and Mark Cross have handsomely packaged their "Cross Country" line of fine toiletries for men of good taste. These Norton containers and caps of rich black phenolic plastic are getting plenty of male attention.

You'll probably also recognize these attractive plastic make-up cases . . . all molded by Norton in beautiful, non-fading colors or white with rich embossed designs. They suggest the versatility as well as the quality of our work.

Norton design engineers are ready to advise you competently on any question involving plastics packaging. Our large facilities and our experience with leading cosmetics houses equip us to handle your molding requirements with great efficiency. We can deliver in quantity . . . and with speed.

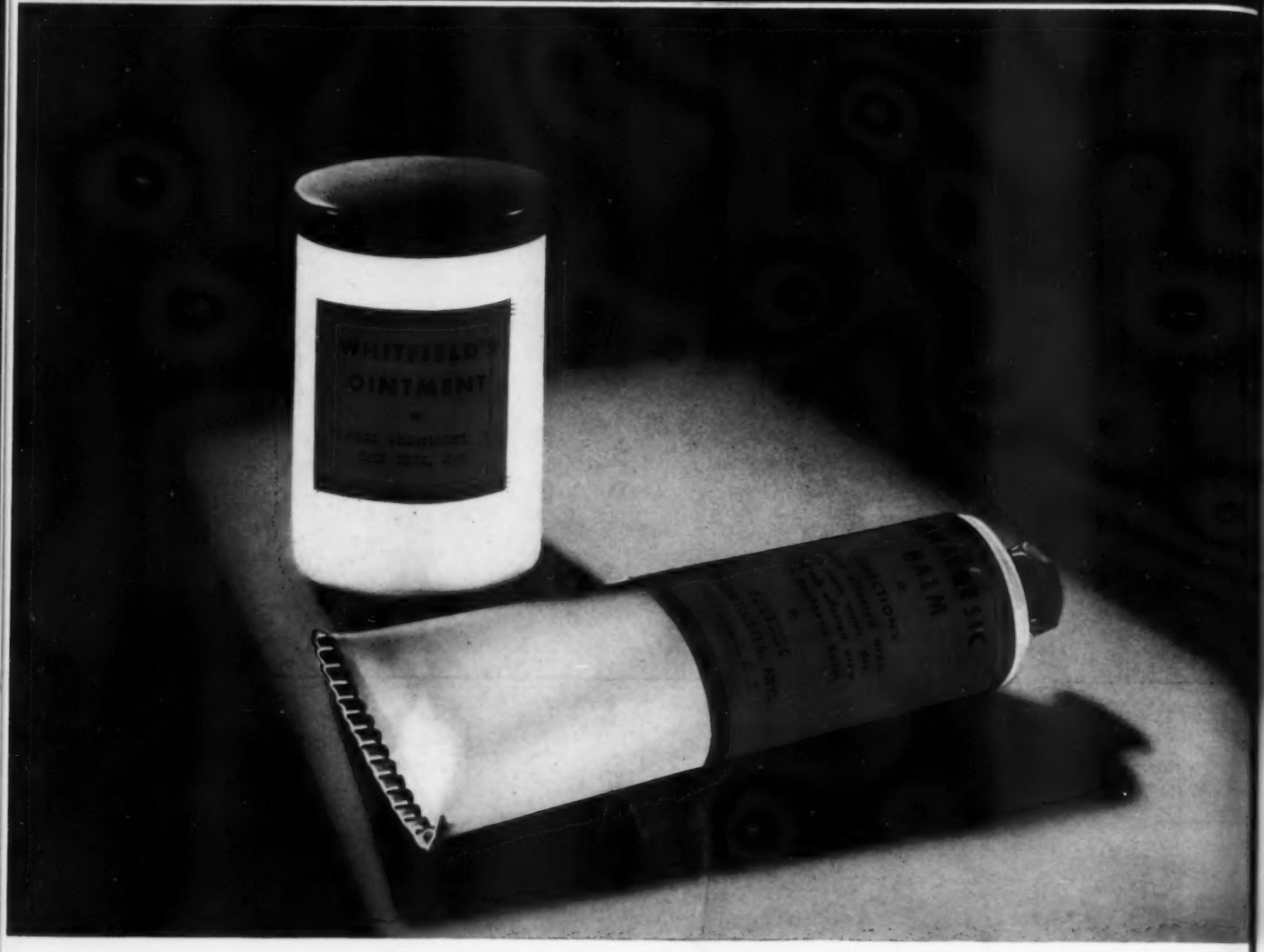
Why not call or write us today? Norton Laboratories, Inc., Lockport, New York.

NORTON *Laboratories, Inc.*

SPECIALISTS IN FINE CUSTOM MOLDING

CAPA

Three basic "musts" when you make ointments



You scientifically compound the ingredients into a quality finished product. You maintain rigid laboratory control throughout the manufacturing procedure. And, you choose fine chemicals of uniform and dependable quality as raw materials.

Only by employing all three "musts" can you achieve good results.

For example, ointments and analgesic balm have a multitude of tasks to perform—the first as an antiseptic or germicidal agent to promote healing —the second as a counter-irritant, a stimulus to skin membranes and pain deadener.

Each ingredient you choose must be of measured purity and uniform in quality in order to perform these tasks *well.* Extreme care must be taken in formulating and blending.

A few of the popular items used for the making of ointments are Salicylic Acid, Methyl Salicylate, Ammoniated Mercury, Mercuric Chloride, Benzoic Acid, **Calamine** and Iodine. If they are Baker's *all can be depended upon.*

No matter what product you manufacture—if it requires one or more fine chemicals, specify Baker and you'll specify quality *at the beginning.*

J.T. Baker Chemical Co., *Executive Offices and Plant:* Phillipsburg, N. J. *Branch Offices:* New York, Philadelphia, Boston and Chicago.

Baker's

FINE CHEMICALS

NEWS...

Award to Dr. Volwiler

The Honor Scroll Award of the American Institute of Chemists, will be awarded this year to Dr. Ernest H. Volwiler, executive vice-president of

ERNEST VOLWILER

Abbott Laboratories, it was announced by Dr. C. A. Johnson, chairman of the Chicago Chapter of the Institute. Dr. Volwiler is to be honored for his large number of contributions to the field of medicinal chemistry and also for his outstanding work in the organization of research programs. Presentation of the award will take place at the fall meeting of the Chicago Chapter of the Institute.

Born in Hamilton, Ohio, in 1893, Dr. Volwiler was graduated from Miami University, and received his Ph.D. from the University of Illinois in 1918. He became chief chemist of Abbott Laboratories in 1920 and was made director of research and also a director of the company in 1930. In 1933 he became vice-president in charge of research and development, and in 1946 executive vice-president.

Hutchinson Expansion

In line with growth and expansion plans, David Wallace Hutchinson, founder and president of D. W. Hutchinson & Co., Inc., has been elected chairman of the board.

Mr. Hutchinson's career in the industry began well over a half century ago when he represented a prominent French manufacturer of perfume materials. This training and association led him to found his own company in 1896.

Wallace Hutchinson, in moving up from secretary to the position of president of the company, completes 30 years of continuous service with the organization.

Also elected were the following new officers: Dr. Frederick W. Brown, vice president in charge of research; Irving Edgar Chase, vice president; James Lane, secretary; George V. Cooney, asst. treasurer.

Schering Appoints Dichter

Schering Corporation has announced the appointment of E. Richard Dichter to the Schering Staff.

After graduation from Columbia University as a pharmaceutical chemist, Mr. Dichter served as consultant to several pharmaceutical manufacturers, and as special assistant to the vice president in charge of research and development of General foods Corporation. With the Schering Corporation he will be assigned to develop new processes of pharmaceutical manufacture and further improve existing biological production technics.

Artie "Aspro" Lightfoot and Francis "Digger" Chilson working on a contour model of the new Nicholas Ltd., plant at Melbourne, Australia. The plant is to be model for all Aspro plants throughout the world.

Wolcott Upped by Bristol Myer's

Dr. George L. Wolcott has been named director of the professional department of Bristol-Myers Company.

He is a native of Red Bank, N. J., and a graduate of Lehigh University and the College of Physicians and Surgeons of Columbia University where he received his M.D. in 1938.

Following graduation he was for some time senior medical officer of the Federal Trade Commission in Washington, and prior to entering the Army, served as a medical director of a leading New York pharmaceutical house. His Army service included duty at the St. Louis Medical Depot and at Ft. Monmouth,

GEORGE L. WOLCOTT

N. J. He was discharged with the rank of Major in 1946.

In August 1946 Dr. Wolcott joined Bristol Laboratories Inc., a subsidiary of Bristol-Myers, as assistant medical director and served in that capacity until his recent appointment to the parent company.

Kriger Shifts From Research to Sales

Winthrop Chemical Company, New York, has appointed Jack Kriger to the sales staff of its special chemicals division. Mr. Kriger previously was on the research staff of the company's laboratories in Rensselaer, N. Y.

Flavoring Assn. Elects Chapman

The Flavoring Extract Manufacturers Association of the United States elected George M. Chapman of the Liquid Carbonic Corporation, Chicago, president at its convention held in Atlantic City.

Other officers chosen were Leslie S. Beggs, John N. Curlett, and Frank P. Nowland, vice presidents; John H. Beach, treasurer, and L. P. Symmes, treasurer.

It is with pleasure that

we announce that

RENÉ FORSTER COMPANY, INCORPORATED

has become

ALLONDON, INCORPORATED

with offices at

66 DEY STREET, NEW YORK 7, N. Y.

Telephone: COrtlandt 7-1192 Cable Address: Allondon

Mr. RENÉ FORSTER, *President*

- All well-known Allondon Specialties Carried in Stock
- Essential Oils and Aromatic Chemicals

Hugo Mock Honored

Approximately 100 key figures of the drug and cosmetic industry honored Hugo Mock, Thursday, May 22 at the annual dinner of the Drug, Cosmetic and Allied Trades division of the United Jewish appeal of Greater New York.

HUGO MOCK

Mr. Mock was extolled by trade leaders for his many years of service to the industry, and for selflessly and tirelessly devoting himself to promoting the welfare of all persons in distress, regardless of race or religious belief.

New Rexall Appointments

Earl Mabry, Forth Worth, has been named general manager of the 20 Renfro and Liggett Rexall Drug stores in the State of Texas.

Prior to his promotion, Mr. Mabry was assistant to George F. Olsen, Jr., who has been appointed director of Rexall's Southeastern region. He has been with the Renfro organization for 22 years, was a vice president with it before it was purchased by Rexall.

George F. Olsen, Jr., has been appointed regional director for the Southeastern division consisting of one hundred stores in the states of Georgia, Alabama, Tennessee, Florida and South Carolina. He succeeds H. C. Naylor, retired, who was president and general manager of the Lane Drug Stores, Inc., until their purchase by Rexall last September, and the regional director of the Lane and Liggett stores in the Southeast since that time.

Mr. Olsen was a wartime assistant in both the War and Navy departments, and has been associated with the Rexall Drug Company since 1944 when he was made the director of training.

Heads Drug Sales

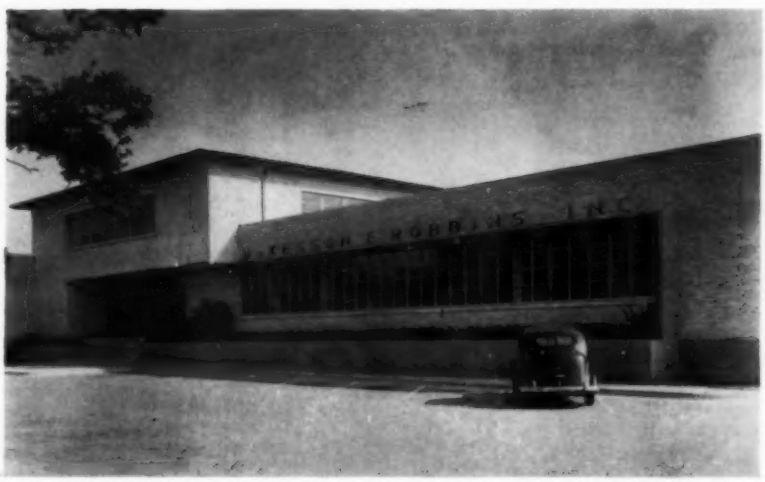
John Allen Underwood has become vice president of Lehn & Fink, Inc., he will have charge of all sales and promotion of drug and pharmaceutical products.

Thomas Elected Monsanto Vice President

Dr. Charles Allen Thomas, vice-president and technical director of Monsanto Chemical Company, was elected executive vice-president, Edgar M. Queeny, chairman of the board, has announced.

Dr. Thomas, received the Medal of Merit from the War Department for his work in atomic energy, and is president-elect of the American Chemical Society. He continues as technical director and member of the technical committee.

The directors elected Felix N. Williams, vice-president and general manager of the plastics division, to the board, and named five additional vice-presidents: Josiah B. Rutter, Dr. C. A. Hochwalt, William W. Schneider, Daniel M. Sheehan and C. A. Wolfe.



Exterior of McKesson & Robbins' offices and warehouse, Houston, Texas, showing the main entrance to building.

Two Advanced By Sharp & Dohme

David V. Knott, manager of the Sharp & Dohme San Francisco branch, has been named Philadelphia branch manager succeeding C. A. Krieger.

DAVID V. KNOTT

Tink L. Johnson, supervisory clerk of the San Francisco branch has been appointed acting manager of that office.

Mr. Knott has been with Sharp & Dohme since 1937 except for two and a half years' service in the U. S. Army.

Mr. Johnson has been associated with the company since 1937 and has served successively in the Seattle, Portland and San Franciso branches.

Wilson Appointed Asst. Director of Research

Ivan V. Wilson has been appointed assistant director of research for the Monsanto Chemical Company's Merrimac Division.

Mr. Wilson, who was manager of the coating sales development department prior to assumption of his present duties, will be in charge of all research and application work connected with the development of new and improved types of coatings. He came to Monsanto in 1927 and since then has largely been connected with the sales and development departments of the Merrimac division.

Dr. Perkins Joins Reed & Carnrick

Dr. Ralph A. Perkins, late of the medical department of Parke, Davis & Company, Detroit, is the new medical director of the physiological laboratories of Reed & Carnrick, Jersey City.

Plexo Moves to New Quarters

Plexo Preparations, Inc., have moved its office and plant to 67 Vestry St., New York 13, Hall & Ruckel, Inc., Amwell Laboratories, Inc., and Odorbase Mfg., Co., Inc. will also be located at the same address.

Anderson Transferred to Sales

Norman H. Anderson, hospital representative in Southern California for Burroughs Wellcome & Co., has been

NORMAN ANDERSON

transferred to the sales department, New York office, where he will be associated with C. A. McAvoy.

Mr. Anderson received his Ph.G. from the Rhode Island College of Pharmacy. His first assignment as a member of B. W. & Co., was an attendent in the New York exhibition galleries. Later he assumed duties as a medical representative in the Pittsburgh area.

With the outbreak of the war, he enlisted in the Army and was commissioned as a Captain in the Medical Administrative Corps. He served in the South Pacific and was released as a Major.

---

21 Years With Burroughs Wellcome & Co.

In February and March respectively, representatives Alfred R. Trimbach, Oakland, Cal., territory, and Morril S. Reynolds, Boston territory, reached their twenty-first year as representatives of Burroughs Wellcome & Co. Both men were presented with a gold watch suitably engraved to mark this milestone in their careers.

Bristol-Myers Grant

W. M. Bristol, Jr. executive vice president of Bristol-Myers Company, has announced a grant-in-aid to McGill University, Montreal, to enable it to establish a research institute of biophysics within the department of Medicine of the McGill University Medical School and the establishment of fellowships therein. The research institute will be under the directorship of Dr. K. A. Evelyn, Ph.D., M.D.

In announcing the grant, Mr. Bristol said: "Our company is enthusiastic about the project and happy to collaborate with McGill University in this field, which is one of the most important areas of medical research at the present time. We expect that advantage will be taken of the newer knowledge in atomic physics in an attempt to shed new light on the cause and treatment of diseases of the heart, blood vessels and kidneys."

Dodge & Olcott Open West Coast Office

Charles Homan has gone to the West Coast to open Dodge & Olcott, Inc., new branch in Los. Angeles.

Murphy Named Sales Manager

Stephen M. Murphy has been appointed district sales manager of National Can Corporation's Western division general line sales. His headquarters will be in the Chicago office of the company.

STEPHEN M. MURPHY

Mr. Murphy has been with the National Can Corporation for the past thirteen years, during which time he was directly associated with sales and production in the Eastern division.

Lambert Pharmacal Names New Executives

Edward T. T. Williams has been named president and director of the Lambert Pharmacal Company, St. Louis. Mr. Williams was formerly chairman of the excutive committee of Becton-Dickinson Company of Rutherford, N. J., and will continue as director of that company.

Mr. Johnson, former president, becomes chairman of the board and continues as chief executive officer of the Lambert Pharmacal Company.

Also appointed as vice presidents were the following Lambert Pharmacal Company executives, all of whom have been with the company for a number of years: Herbert C. DeStaebler, Stanwood A. Morrill, Walter J. Noll, and Otway W. Rash.

New Catalog Issued by Ever Ready Label Corp.

With "Tools of Business," the first full-size label catalog issued by Ever Ready Label Corporation, of New York, since prewar days is available. A wide range of "tested-by-experience" label designs for shipping, packing, advertising and other uses culminates 32 years of specialization by this concern.

The catalog is especially designed for the use by the prospective label buyer with a limited knowledge of label production, design, paper and costs. Copies may be obtained by a request to Ever Ready Label Corporation, 141 E. 25 St., New York 10, N. Y.

Weber Appointed Sales Promotion Manager

The appointment of Ray A. Weber as sales promotion manager for the Pepsodent division, Lever Brothers Company, has been made known by George R. Stege Jr., director of sales.

Mr. Weber is resigning from the Allied Home Products Corporation to join Pepsodent. He has been vice president in charge of sales and advertising for the Allied firm since 1943.

During the period from 1926 to 1933, Mr. Weber served as assistant advertising and sales promotion manager of the Edison General Electric Appliance Company, Chicago. From 1933 to 1938 he was with the Joseph Schlitz Brewing Company, Milwaukee and from 1938

RAY A. WEBER

to 1940 he was general sales manager of the West End Brewing Company, Utica N. Y. From 1940 to 1942 he was owner of the R. & H. Packing Company, Chicago.

ADVERTISEMENT—*This entire page is a paid advertisement* *Prepared Monthly by U. S. Industrial Chemicals, Inc.*

U.S.I. CHEMICAL NEWS

June ★ A Monthly Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★ 1947

New Data Uncovered On Use of Butanol In Organic Syntheses

Research in Russia, India, U.S.A. May Herald New Applications

Laboratory research by Russian, Indian, and American scientists discloses new information concerning the use of butanol in organic syntheses, according to a number of papers published within the last three years. These discoveries may open new fields of application for this versatile solvent, which is now being used widely in the protective coatings and other important industries.

New Syntheses

Most recent of the new synthetic uses of butanol involves its conversion to butyric acid. In this method, which is described in an American patent, excess quantities of butyraldehyde are mixed with butanol and a cobalt acetate catalyst in a specially-constructed apparatus. The mixture is then treated with a gaseous oxidizing agent.

Russian scientists revealed recently that butanol when treated with aluminum and iodine under specific conditions will produce an exceptionally high yield of butyl iodide. The reaction is said to be spontaneous and to generate a considerable amount of heat. Another Russian report claims that butyl chloride and some secondary-butyl chloride are obtainable from reacting butanol with ferric chloride.

Although the reaction between hydrochloric acid and butanol has been known for some time, Indian chemists have purportedly discovered a method for increasing the reaction rate. This is claimed to be accomplished by adding benzene to the reaction mixture. The effect is said to be due to the greater solubility of the hydrochloric acid in the butanol as compared to the benzene.

Standard Applications

Butanol, a medium boiling alcohol, owes its industrial importance in the solvent field to its relatively low evaporation rate, and strong solvent powers for a wide variety of organic materials. Its most important application here is as a latent solvent for nitrocellulose to make airplane dopes, artificial leather, patent and enameled leather, coated paper finishes, nonshatterable glass fillers, printing inks, and photographic film. Butanol is also used as a solvent for a variety of resins.

In general, this compound is an excellent

(*Continued on page 2, column 2*)

Protein Synthesis Observed Outside Body for First Time

The synthesis of proteins has been observed for the first time outside of the animal body through the application of radioactive tracers, according to a report published recently by two American scientists. These biochemists placed slices of animal liver in a solution containing radioactive methionine. Although the total protein content of the tissue decreased, the liver was shown to be still actively synthesizing new protein by the incorporation of methionine containing radioactive sulfur by the formation of peptide linkages. The research may lead to methods of coming to direct grips with protein synthesis *in vitro*, the authors state.

Present Exterior Paints Better Than Pre-War, Says E. T. Trigg

President of National Paint, Varnish, and Lacquer Association States Few Items Now Give More Dollar Value Than Paints

WASHINGTON, June 2.—In an interview today, Ernest T. Trigg, President of the National Paint, Varnish, and Lacquer Association stated that in his opinion there are few if any commodities for which the consumer is now getting more dollar value than in his paint purchases. "As far as exterior paints are concerned," he went on, "there are many who have the conviction that the war-time paints are equal or superior to pre-war types, and this conviction is so deep-seated that they do not expect ever to revert to their old formulas."

Pointing out that the protective coatings industry was forced to meet skyrocketing war-time production demands in the face of critical shortages, he asserted that there was nevertheless no real sacrifice in quality. "During the war," he said, "members of the paint, varnish and lacquer industry were called upon to furnish protective coatings for the army and navy in prodigious quantities. Ships, tanks, planes, guns—every piece of ammunition down to the smallest shell—all required the products of our industry to keep them in fighting trim and ready to go into action at the proper time. We also had to meet the paint requirements of the camps and training stations where millions of our young men were housed while preparing for overseas duty, of the huge new plants constructed to provide the sinews of war, and of the housing which was needed for the workers in these war plants.

"Our industry met every military requirement and all essential civilian requirements," he continued, "despite the shortages of many critical materials. Although some of the modern fast drying paints could not be made because certain critical materials were going into military uses, comparable results were obtained with slower-drying finishes. There

(*Continued on page 2, column 1*)

"I have little hesitation in stating that all during the war and right up to the present, there have been few, if any, commodities for which the consumer has received more value for his dollar than paint."—E. T. Trigg

THE MONTH IN COATINGS

***A substitute for casein** in paints is reported to be alginic acid, a marine plant derivative . . . **A survey of methods** for testing coating resins, which is said to avoid duplication of the work of other groups and to be wide in scope, is published . . . **To cut can damage** and save floor space, a new device is marketed for stocking, storing, transporting, and displaying round cans . . . **A photosensitive lacquer,** which is said to be tough enough to require no hand-applied reinforcement and to increase fineness of detail and accuracy of production, is announced . . . **A dual-service "wash-primer,"** is described as a vinyl resin base material which serves as a metal surface conditioning agent and a priming coat . . . **A "can mobilometer"** is on the market for measuring the viscosity of materials in their original containers . . .*

U.S.I. Reduces Prices Of Synthetic Resins

Despite the fact that resin availability is lagging well behind demands, U. S. Industrial Chemicals has announced a reduction of approximately 10 per cent in its prices on practically all types. The price reduction is the second general cut U.S.I. has made on synthetic resins since prices were decontrolled. The reductions have been made possible by lowered costs and improved production methods.

Synthetic resins manufactured by U.S.I. are used in the production of protective coatings, such as paints, varnishes, lacquers, enamels, as well as many specialty products. These resins are manufactured in U.S.I. plants at Newark, Baltimore, and Pensacola.

Booklet on Shipping Chemicals Now Available

A 32-page pamphlet on tank car classifications for ladings, listing the chemicals usually shipped by tank cars, and the class of cars permitted by the Interstate Commerce Commission, is now available. The AAR classification of cars and ICC rules for shipping are included.

ADVERTISEMENT—*This entire page is a paid advertisement*

June ★ **U.S.I. CHEMICAL NEWS** ★ 1947

Present-Day Paints

(Continued from page 1, column 3)

was never any real sacrifice in quality," he reiterated.

Only One Fundamental Change

According to Mr. Trigg, the only fundamental change that was made in paint formulation during the war was occasioned by the War Production Board Conservation Order M-332 which limited the quantities of oil used in several types of paint. This order was put into effect in accordance with the recommendations of a committee of outstanding paint technologists based upon their own knowledge and experience, and was in keeping with a trend which had already begun.

"For example," Mr. Trigg said, "before the war, exterior house paints contained about 5 pounds of raw linseed oil. The WPB order limited them to 3.75 pounds of oil. But the oil which was used was a bodied oil to which 1.25 pounds of thinner could be added to give a vehicle comparable to raw linseed oil in its properties."

How do these new exterior paints compare with the pre-war type?

"We determined that," Mr. Trigg said. "Soon after the order became effective, the Scientific Section of the National Paint, Varnish, and Lacquer Association placed panels coated with a number of 'conservation' paints on our exterior test fence. We exposed them in direct comparison with the first-line paints made by the same manufacturers in 1940. Today, after more than three years of exposure, the 'conservation' paints appear to be equal in integrity to the old-type paints. They are cleaner and give a better appearance because of their self-washing qualities."

Sees Bright Future

"The lessons of the war have been absorbed and are being reflected in improved paints for architectural surfaces and in specialized finishes as well," Mr. Trigg declared. "Research programs are being carried on continuously in the laboratories of paint manufacturers and their raw material suppliers—and while these hold promise for the future, there should be no hesitation upon the part of the consumer in accepting the products of reputable manufacturers today."

Reports "Tongue Prints" Simplify Disease Diagnosis

A simple and accurate method for taking "tongue prints" will aid in the treatment of many diseases, according to a paper published recently in an American medical journal. The tongue print, which is said to be as individual as a fingerprint, is reported to alter in measurable fashion during disease, providing an accurate means of diagnosis. Basis of the new method is a special ink described as containing Evan's blue, gum acacia, and chlorobutanol, a derivative of acetone. The print is obtained by applying the inking solution, then pressing cardboard-backed paper against the tongue in a prescribed manner.

Geiger Counter Made Into Sensitive Fire Alarm

A redesigned Geiger counter, a device formerly used to detect dangerous X-rays or those present in atomic material, can now report the presence of flames, according to a recent announcement. The device is said to be so sensitive that it can spot a match flame yards away, or sound an alarm at the sparks from the wheel of a cigarette lighter. The instrument is only 1⅝" in diameter and 6¼" long, with an electrically charged tungsten wire running through the center and a quartz window at one end. When ultra-violet rays from a flame pass through the eye, an electric charge is released.

New Butanol Data

(Continued from page 1, column 1)

blending agent for holding immiscible liquids together in a homogeneous solution, or for preventing the precipitation of otherwise incompatible solids. Miscellaneous solvent uses are for brake fluids, hydraulic shock absorber fluids, insect sprays, penetrating oils, polishes, and metal cleaners. It is also a detergent, a dehydrating agent, a surface tension depressant, and an anti-foaming agent.

More Riboflavin Needed in Poultry Feeds

Recent experiments indicate that present riboflavin recommendations for poultry are inadequate. This was especially true in rations designed for high hatchability and weight maintenance during high egg production. Addition of riboflavin to rations previously thought adequate produced chicks with greater livability and growth potential.

TECHNICAL DEVELOPMENTS

Further information on these items may be obtained by writing to U.S.I.

To prevent wood decay, a new primer, or sealer, has been placed on the market, which is said to combat mildew and rot in hot, wet climates. **(No. 202)**

USI

A new hand-operated emulsifier is claimed to disperse small quantities of immiscible liquids into a homogeneous emulsion by means of a few vigorous strokes. **(No. 203)**

USI

To stabilize plastics against light, a new product has been developed which is alleged to be effective in quantities as low as three per cent. **(No. 204)**

USI

A new dip-coating plastic, is said to provide adequate protection for all types of equipment with a single dip. The coating is claimed to resist acids, alkalies, oxidizing agents, and some solvents. **(No. 205)**

USI

To improve the fastness of dyes, a new after-treating compound is offered. **(No. 206)**

USI

A substitute for red lead or zinc chromate in conventional paint primers is described as a muscovite mica containing graphite. **(No. 207)**

USI

Two new adhesives have been placed on the market. One is described as a cold-setting thermoplastic, synthetic waterproof adhesive with high resistance to oxidation. The other, a liquid, is claimed to adhere to any material and develop strong tack immediately. **(No. 208)**

USI

To remove silica from boiler feed water new equipment, which applies the principles of demineralizing, has been developed. **(No. 209)**

USI

To bond vinyl to vinyl sheets or other stocks coated with these materials is now possible by means of a new adhesive, the manufacturer states. **(No. 210)**

USI

To resist summer heat rays, a new roof paint is being offered which is said to cut interior temperatures as much as 15 degrees by deflecting 70 per cent of the sun's heat rays. **(No. 211)**

USI

To stabilize rayons permanently is the purpose of a new process which is alleged to cut rayon shrinkage down to the range of 0 to 1 per cent. **(No. 212)**

USI

A new corrosion-proofing material has self-sealing properties and can be patched over areas from which it has been removed, according to the manufacturer. **(No. 213)**

U.S.I INDUSTRIAL CHEMICALS, INC.

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PHTHALIC ESTERS
Diamyl Phthalate
Dibutyl Phthalate
Diethyl Phthalate

OTHER ESTERS
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Diethyl Carbonate
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Ethyl Formate

INTERMEDIATES
Acetoacetanilide
Acetoacet-ortho-anisidide
Acetoacet-ortho-chloranilide
Acetoacet-ortho-toluidide
Acetoacet-para-chloranilide
Alpha-acetylbutyrolactone
5-Chloro-2-pentanone
5-Diethylamino-2-pentanone
Ethyl Acetoacetate
Ethyl Benzoylacetate
Ethyl Alpha-Oxalpropionate
Ethyl Sodium Oxalacetate
Methyl Cyclopropyl Ketone

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Ethyl Ether
Ethyl Ether Absolute—A.C.S.

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Riboflavin Concentrates
*Vacatone 40
*Curbay B-G *Curbay Special Liquid

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Ester Gums—all types
Congo Gums—raw, fused & esterified
*Aroplaz—alkyds and allied materials
*Arofene—pure phenolics
*Arochem—modified types
Natural Resins—all standard grades

OTHER PRODUCTS
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Ethylene
Ethylene Glycol
Urethan
Nitrocellulose Solutions
dl-Methionine

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Lachman Takes Bride

Charles R. Lachman, co-founder and vice president of Revlon Products Corporation was married recently to Ruth Mabee Wormhoudt, Beverly Hills, Cal.

Mr. Lachman, who entered the cosmetic field 26 years ago, is in charge of product control for Revlon, and has seen the company grow from its modest beginnings in 1932 to the leader in lipstick and nail enamel production.

Mrs. Lachman is the daughter of Mrs. Grace Mabee, noted music critic and editor of "Film Music Notes," and the sister of Marion McManus, featured soloist on Manhattan "Merry-Go-Round."

"Jeff Snider Day"

The Allied Drug and Cosmetics Association of Michigan held their second golf outing of the season at Birmingham Country Club on June 27. This outing was known as "Jeff Snider Day" in honor of Jeff Snider, past president of the association, who is leaving the Detroit district to open offices in Louisville, for Commerical Solvents Corp.

Bjorksten Gets Nash-Kelvinator Contract for Research

The Nash-Kelvinator Corporations has awarded to the Bjorksten Research Laboratories, a research contract relating to subjects pertinent to plastic fabrication.

Baker Canadian Appointment

G. B. Hafer, general sales manager of The J. T. Baker Chemical Co., has announced the appointment of Alan W. Bennett as sales representative for Canada.

ALAN W. BENNETT

Mr. Bennett, was formerly with the General Electric Company in Toronto. He will call on the Eastern Canadian Trade.

Calco Names Klipstein

Kenneth H. Klipstein has been named assistant general manager in charge of the development and V. E. Y. Atkins, manager of the manufacturing for the Calco Chemical Division, American Cyanamid Co.

It was also made known that Ames B. Hettrick, had been made an assistant manager of manufacturing, and that L. M. Phelps will assume the post of plant production manager, Bound Brook Plant. F. W. Zipf, was named assistant to the manager of production.

Dr. Dickinson Joins Bristol Labs.

Dr. Lee Dickinson has joined Bristol Laboratories, Inc., as director of pharmacology research.

A native of Ashland, Ken., Dr. Dickinson was graduated from Vanderbilt University in 1935, and in 1939 received his Ph.D. from the same institution. After receiving his doctorate, he was appointed reasearch associate in pharmacology of the Vanderbilt Medical School and later was made assistant professor of pharmacology.

Hoosier Pharmacal Changes Name

The Hoosier Pharmacal Company, Indianapolis, changed its corporate name to the Dabney Pharmacal Company, Inc. Dr. Bernard J. Ludwig has been appointed technical director of the firm.

Lentheric Realty Transaction

Lentheric Inc., New York, has sold its factory building and land in Long Island City to the Mutual Life Insurance Company for $1,875,000. The building has been leased back to E. R. Squibb & Sons, for an original term of twenty-five years. The Mutual Life is modernizing the building at an estimated cost of $1,500,000.

Rochester Drug Exchange in New Quarters

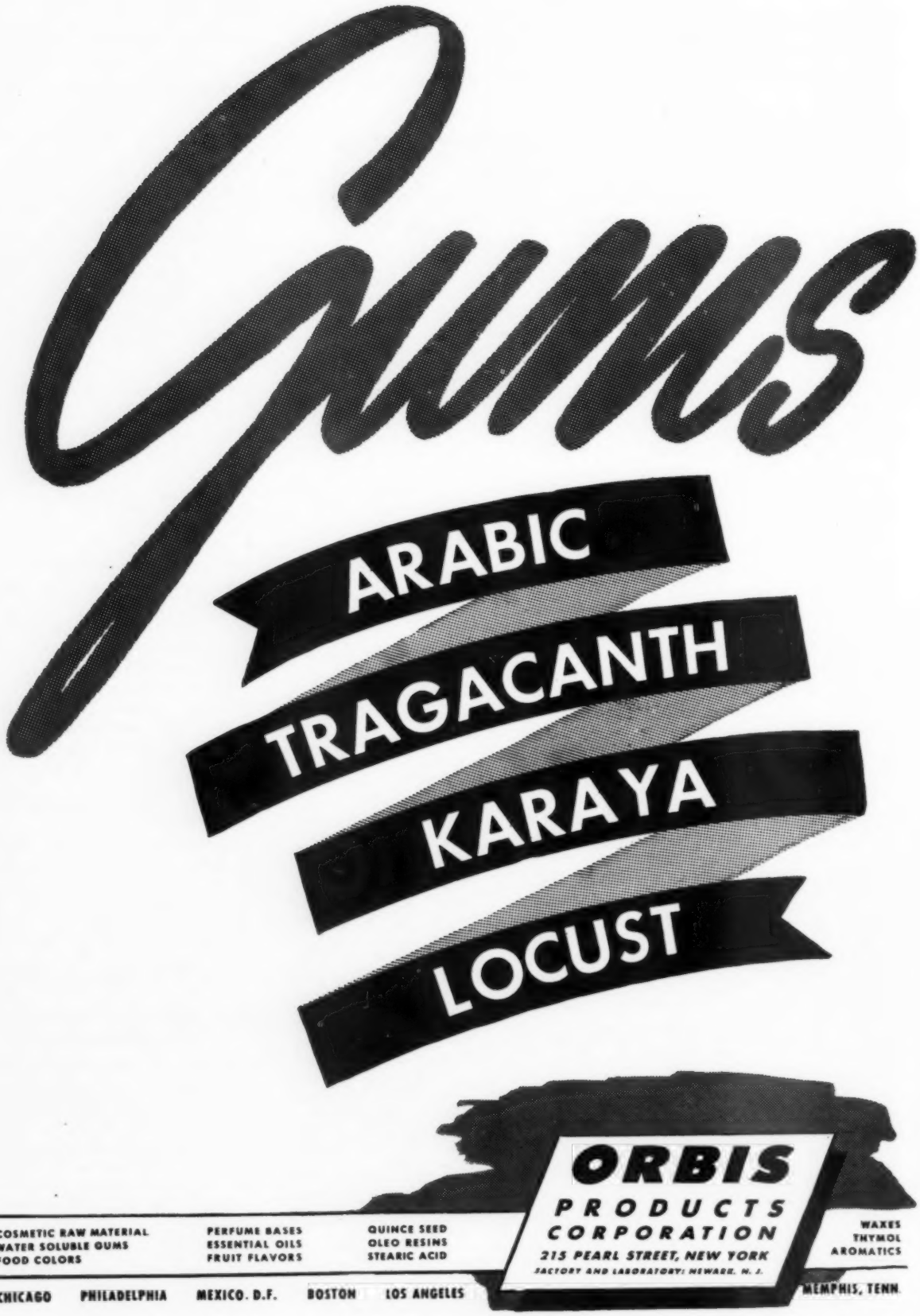
Rochester Drug Merchants Exchange is buying a new building to which it is moving its warehousing operations, following the collapse of the upper floors of its old building. It is expected that installation will be complete within the month.

Sharp & Dohme's New Denver Branch

Sharp & Dohme's new quarters at 1525 Wynkoop St., Denver, has been designed for maximum operating efficiency. The modern fireproof building was constructed to Sharp & Dohme specifications and has four times as much space as the former Denver branch.

Sharp & Dohme plan several other branch expansion moves which are expected to be made within the next six months. Leases on buildings for two moves in Minneapolis and Los Angeles, already have been signed.

The Package Machinery Company of East Longmeadow, Mass., through president George A. Mohlman, has provided training facilities for the Springfield Dog Obedience School. Pictured here is Mr. Mohlman with his Kerry Blue and some of the more than 75 dogs that received weekly training at the company's plant. The school provides a splendid medium for expanding community relations as well as an appreciated employee service.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CHICAGO
PHILADELPHIA
MEXICO, D.F.
BOSTON
LOS ANGELES
MEMPHIS, TENN.

Miles Elected President of Ames Co.

At the annual meeting of Ames Company Inc., the following officers were elected: Chairman of the board, Walter R. Beardsley; Charles F. Miles, president and treasurer; Walter A. Compton, M.D., vice president; Edward H. Beardsley, vice president and general manager; Paul de Haen, vice president; John A. Cawley, secretary; Howard F. Christner, assistant treasurer.

At the same time it was announced that Edward J. Ettl, M.D., had been appointed assistant medical director of Ames Company, Inc.

Dr. Ettl studied at Notre Dame University and received his medical degree at the University of Indiana. He interned at Wisconsin General Hospital, Madison before joining the Army. While in the Army, Dr. Ettl was assigned to Army-Navy General Hospital, Hot Springs, Ark., Camp Robinson Regional Hospital, and Camp Hood Station Hospital.

Fritzsche Elects O icers

At the annual meeting of stockholders of Fritzsche Brothers, Inc., held May 7, the following officers were reelected: F. H. Leonhardt, John H. Montgomery, H. P. Wesemann, Dr. Ernest Guenther, Jos. A. Huisking, B. F. Zimmer, Jr., and F. H. Leonhardt, Jr.

At the meeting of the board of directors held the same date all the above were elected officers for the current year, plus John L. Cassullo as assistant treasurer, D. A. Neary, assistant secretary and G. A. Wohlfort, comptroller.

Bevarly Named to New Post

John E. Slaughter, Jr., vice-president of the Girdler Corporation, Louisville, in charge of the firm's Votator division has announced the appointment of

H. W. BEVARLY

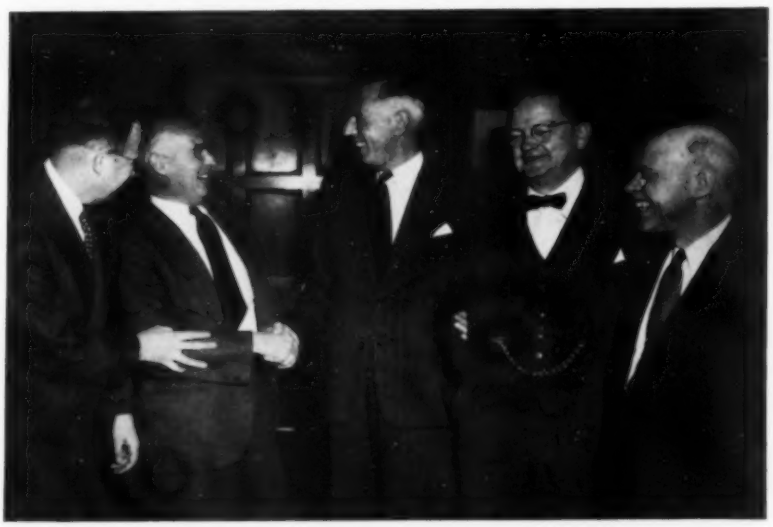
H. W. Bevarly to the post of assistant chief engineer.

A native of Henry County, Ky., Mr. Bevarly joined Votator in 1929, following extensive experience as a draftsman and refrigeration specialist.

Beauchamp Elected Vice-President

Wilfrid F. Beauchamp has been elected a vice president of George Lueders & Co., Inc.

Mr. Beauchamp is in charge of the company's Montreal branch and has been associated with Lueders for twenty-three years and is quite well known in the Dominion of Canada.



J. S. Zinsser, president of Sharp & Dohme, Inc., greets T. W. Rayner (center) managing director of Sharp & Dohme Ltd., Hoddesdon, England, on his arrival for a two weeks' conference with officials of the parent company. W. B. Wimpenny, acting director of export operations (left) W. L. Dempsey, executive vice-president, and H. W. Rickards (right), assistant to the director of export operations, are pictured with Mr. Zinsser and Mr. Rayner.

Dr. Langlykke Appointed by Squibb

The appointment of Dr. Asger Funder Langlykke as a member of the Squibb Institute for Medical Research in charge of the division of microbiological development has been announced by Dr. James A. Shannon, director.

Dr. Langlykke has done extensive work in the field of fermentation chemistry in the Northern Regional Research Laboratory of the U. S. Department of Agriculture in Peoria, Ill.

Prior to his work with the government Dr. Langlykke served as a member of a consulting group engaged by the Lummis Company of New York to place into operation their Puerto Rican butyl alcohol plant of which he then became superintendent. He also conducted laboratory research on fermentation and by-product recovery for Hiram Walker and Sons, Inc.

Dr. Langlykke was born in Pleasant Prairie, Wisconsin in 1909 and was educated in Wisconsin, obtaining from the University of Wisconsin the degrees of B.S. in Chemcial Engineering, 1931, M.S. in Bacteriology, 1934 and Ph.D. in Biochemistry, 1936.

Reheis Inc. Formed

Schofield-Donald Co., Inc., Newark, will be known in the future as Reheis Company, Incorporated. No change in company policies will be made.

For the past twenty years the company has been engaged in the manufacture and distribution of fine chemicals for the food, cosmetic and drug industries.

Oxford Labs. Established

Robert F. Reubush, has announced the formation of Oxford Laboratories, Inc. The new firm will develop, manufacture and distribute ethical specialties only. The office and manufacturing laboratories are located at Dayton, Va.

Mr. Reubush has had extensive experience in the ethical drug industry. He was associated for a number of years with the H. K. Mulford Company and, after the merger, with Sharp & Dohme.

In these various capacities, Mr. Reubush became well acquainted with the needs of the physician and pharmacist and with the medical field. He is a graduate of the Philadelphia College cof Pharmacy and Science, and is a past-president of the Philadelphia Branch of the American Pharmaceutical Assn.

Krieger Advanced by Sharp & Dohme

The promotion of Charles A. Krieger to chief of the warehouse section has been announced by H. W. Gadsden, director of the pharmaceutical production and

CHARLES A. KRIEGER

warehousing division, Sharp & Dohme, Inc.

Mr. Krieger is a graduate of Cornell University, 1929 and joined Sharp & Dohme, after five years with the Ellicott Drug Co. In 1936 he was appointed manager of the Chicago branch and opened the Los Angeles branch in 1938.

Commissioned in 1942, he served 35 months in the ETO as a Major in the Air Forces. He rejoined the Company in February, 1946, as manager of the Philadelphia branch.

O'Brien Made Ass't Gen. Traffic Manager

Harry F. Klocker, general traffic manager for Monsanto Chemical Company, announced today the appointment of Irby L. O'Brien as assistant general traffic manager.

Mr. O'Brien, a native of Memphis, was associated with the Illinois Central Railroad from 1923 until the time of his joining Monsanto.

MM&R Adds to Chicago Staff

Implementing a decision to expand the scope and improve the service of the Mid-Western division, Magnus, Mabee & Reynard announce the appointment of Herbert F. Grafslund and John P. Grattan to the Mid-Western sales division with headquarters in the MM&R Chicago office.

Mr. Grafslund will cover the territory previously traveled by G. F. Mehren, new general manager of the Mid-Western area. A Graduate pharmacist with several years of retail training, he was previously employed by E. R. Squibb & Sons and later by Smith, Kline and French as professional service representative.

Mr. Grattan represented MM&R in New York and prior to this was an analytical reporter for Dun & Bradstreet, Inc. During the war he served in China with the Division of Naval Intelligence.

Jabert Acquires General Dental Goods

The Jabert Pharmacal Co., Inc., 80 E. 11th St., N.Y. has acquired the right, title, and interest in the General Dental Goods Co., of Worcester, Mass. The Jabert organization will continue the manufacture and sale of General Dental items.

Janovsky Forms Own Company

Harold L Janovsky formerly district manager of Seeley & Co., Inc., has formed a new organization, Aroscent Inc. Offices are located at 118 E. 28 St., N. Y.

The new firm will deal in essential oils, aromatic chemicals, flavoring and compound bases.

Schering Extends Radiographic Research

Drs. Harold L. Temple and Sydney Weintraub, of the department of radiology of Cornell University School of medicine, have been granted a research fund to support further studies in the field of radio-opaque media. The grant has been established by Schering Corporation, of Bloomfield and Union, N.J.

Buryan Joins Bristol Labs.

Edmund F. Buryan has joined Bristol Laboratories Inc., as manager of the company's international division. He was formerly associated with the William S. Merrell Co., export division, and prior to that was manager of the Bayer foreign division of Sterling Drug Inc., for four years.

E. F. BURYAN

Buryan received his B.A. from Columbia University in 1936 after taking courses in law, business administration and languages.

Victor Metal Changes Name

Victor Metal Products Corporation name has been changed to Victor Industries Corporation. J. Kroneman remains president, with Victor Muscat named vice president and Harold Bethge general manager. The address remains the same, 198 Diamond St., Brooklyn 22, N.Y.

In the presence of leading physicians and government officials of the Mexican Republic, the new Squibb plant of Mexico shown here was formerly dedicated by the Mexican Secretary of Health and Public Security, Rafael F. Gamboa. The new plant occupies a section in historic, San Angel, a residential suburb of Mexico City.

How ANCHORGLASS Standard Bottles help sell your products

● Anchorglass standard bottles are inherently attractive. In rich, sparkling amber or crystal-clear glass they give your liquid products the clean and sanitary protection that appeals so strongly to housewives. They tell your product's story of purity and infinite care in manufacture and packaging. They build confidence in your products for they honestly display both quality and quantity of contents. They prevent evaporation and preserve all the original strength and other qualities peculiar to your products. They symbolize and afford full health protection. They are convenient and easy to carry, grip, open, use, reseal and store. And they provide a visual inventory at all times.

To help you sell more products packaged in glass, Anchor Hocking sponsors the exciting radio mystery show "Crime Photographer" every Thursday evening over the complete CBS Network. During each broadcast millions of listeners are told of the many advantages of buying products packaged in Anchorglass standard containers sealed with Anchor Caps. This is creating more good-will, a continued acceptance and preference for your products.

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★ Bespeak purity

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Cartons with an extra look-at-me brilliance on the shelf! Colors brighter, truer, more even—free from streakiness! What gives cartons of *Coated* Lithwite these plus qualities?

First of all, you'll find the base stock is finer, exactingly level. (Gardner-Richardson has 89 years of paper-making know-how!) And the coating is filmed on with mechanical uniformity in one straight-through precision operation. Result: greater smoothness and evenness, to bring colors up brighter, sharpen plate reproduction. *Coated* Lithwite folds and scores, too, without flaking or shattering.

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The quality clay-coated paperboard for modern merchandisers. Coated Lithwite is whiter, brighter. Its smooth chalk-free surface takes inks brilliantly, brings up colors vividly, uniformly. Rub-resisting. Fade-resisting. Easier to glue. Performance-improved for 8 years.

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Sales Representatives in Boston, Chicago, Detroit, New York, Philadelphia, Pittsburgh, St. Louis.

Pratt Named Asst. Div. Gen. Mgr.

Dr. Lester A. Pratt, general sales manager of Monsanto Chemical Company's Merrimac Division, has been appointed assistant to the division general manager.

Division general manager Josiah B. Rutter announced that the appointment coincides with the naming of Pratt by trustees as president, general manager and trustee of the New England Alcohol Company, a Monsanto subsidiary at the Everett plant. Pratt has served as vice president and general sales manager of the New England Alcohol Company since 1942.

Assistant division general sales manager Howard J. Heffernan, has been appointed to succeed Mr. Pratt, and Frederick S. Hatch, assistant to the division general manager, was elected by trustees as vice president of the New England Alcohol Company.

Fiedler Addresses Dermatology Group

J. George Fiedler, president of the Kelton Company, was guest speaker before the Ohio Dermatology Society in Akron, on May 22. He read a scientific paper on the relationship of the dermatologist to the cosmetic industry, and traced recent developments in the discovery and accommodation of cosmetic sensitivity.

Dr. Bowman Heads Bristol Labs. Syracuse Plant

Franklin H. Bivins has resigned as vice president and general manager of Bristol Laboratories Inc., and Dr. Philip

FRANK H. BIVINS

I. Bowman, vice president in charge of plants has become responsible for the company's operations in Syracuse as of June 1.

Mr. Bivins will rejoin Bristol-Myers Company to work on staff problems with Philip C. Sayres, former president of Bristol Laboratories, who is executive vice president of Bristol-Myers. Mr. Bivins was sent to Syracuse four years ago by Bristol-Myers to supervise construction of the company's penicillin

DR. P. I. BOWMAN

plant which was then being erected under wartime priorities. At that time it was decided that he would remain there until a competent managing group could be organized for the rapidly expanding company.

Dr. Bowman, Bivin's successor, is a graduate of St.Johns College, Annapolis, and received his Ph.D. in organic chemistry at Princeton in 1935. Prior to going to Syracuse, he worked with the Heyden Chemical Corp. He joined Bristol Laboratories in October 1944, as production manager of the penicillin plant and was later made plant manager. He was made vice president in charge of all the plants of Bristol Laboratories last July.

Florence Wall Opens Consultant Service

Florence E. Wall, chemist, author of books on cosmetics and beauty culture, and formerly lecturer on these subjects at New York University, after five years as technical editor for various companies, recently left Evans Research and Development Corporation, New York, to return to consulting work.

She expects to do general technical writing, and specialize, as previously, in research and writing on cosmetics and cosmetology. New address is 155 E. 49 St., New York 17.

Maxey Joins Stephen Riley Co.

Benjamin T. Maxey has been appointed to the executive staff of the Stephen Riley Company, Los Angeles, as general manager of merchandising and sales.

Mr. Maxey's years of promotional and creative activities in the drug and cosmetic field make him well qualified to serve in this capacity. He was most recently merchandising manager, cosmetic division of the Rexall Company.

Salesmen's Association 1947 Golf Dates

The Salesmen's association of the American chemical industry first meeting was Thursday, June 12, Huntington Crescent Club, Huntington, L. I. The others take place July 17, at The Knoll Club, Boonton, New Jersey. August 14, Winged Foot Golf Club, Mamaraneck, N. Y., and September 18, Essex Fells Golf Club, Essex Fells, N. J. Don't forget, replace your divots. Hole all putts.

Bonte Joins Henri Robert

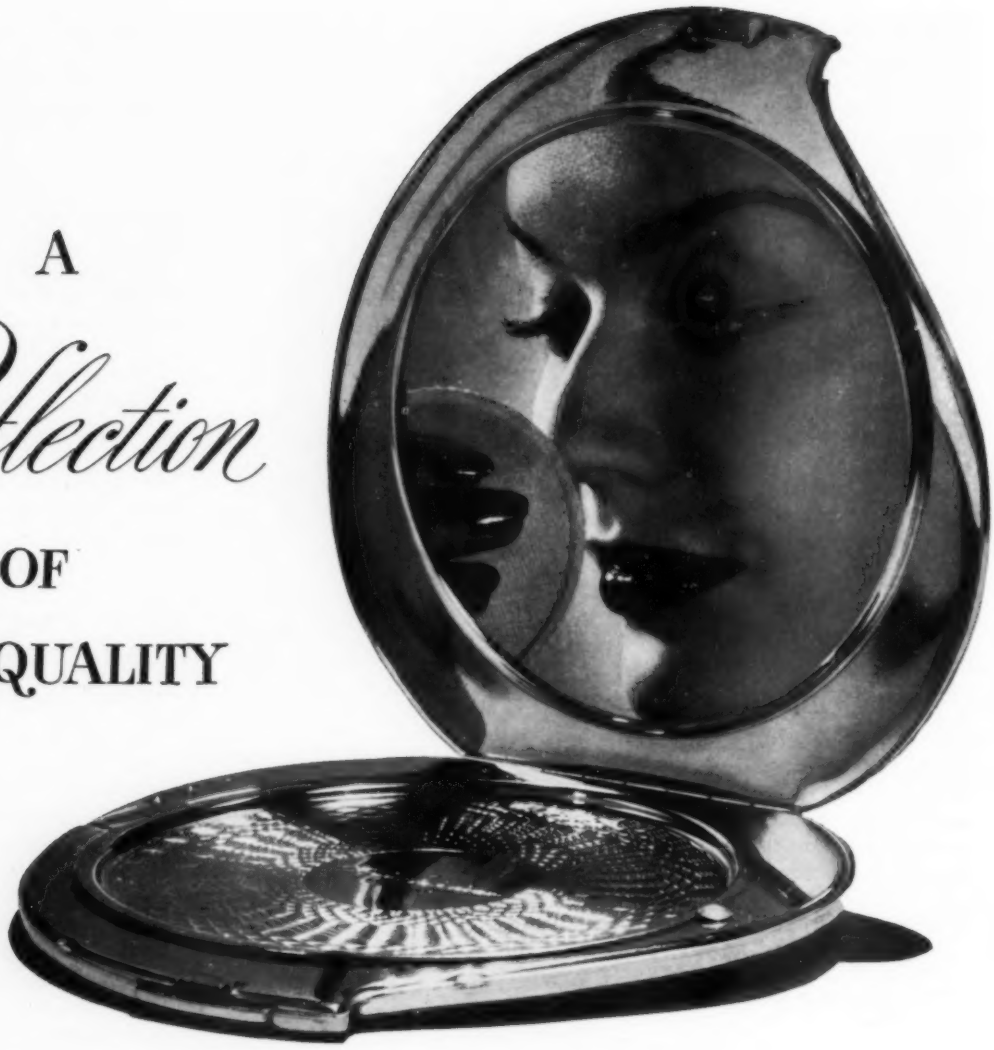
Pierre Bonte, formerly with the Associated Hospital Service of New York, has joined the firm of Henri Robert Inc., as sales representative.

Mr. Bonte was born on Rougaix, France, and came to this country in 1928 on a government scholarship. On completion of his scholastic work, he was employed in sales work until 1935, when he was sent to Paris, as special sales representative and was promoted later to assistant manager of the French branch of International Business Machines. He remained with them until 1939 when he returned to the United States as assistant to the vice president of the Associated Hospital Service.

PIERRE BONTE

One of the top ranking tennis players of France, Mr. Bonte is very active in tennis circles in this country as a member of the Westside Tennis Club at Forest Hills. He has entered in the Eastern indoor championship matches.

A *Reflection* OF FINE QUALITY



Cosmetics, because of their intimate use, call for the finest and smoothest ingredients. Discriminating women insist upon materials pleasant to the touch, as well as flattering to the appearance.

Cosmetic manufacturers know that this fine quality can be obtained only through the consistent use of raw materials that are uniformly reliable, with a background of quality production.

Merck chemicals for cosmetic manufacture are produced under the same rigid standards of purity and uniformity that make Merck products the choice of physicians and pharmacists throughout the world.

We invite you to consult us regarding your problems and requirements.

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Elkton, Va. • Los Angeles, Calif.

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McDonough Elected Director of NYQ

At the annual meeting of the stockholders of The New York Quinine and Chemical Works, Inc., held May 14, Donald J. McDonough was elected a director of the corporation. He is the son of Francis J. McDonough who was president of the corporation from 1925 until his death in 1943.

Charles of The Ritz Buys Cosmo Labs.

Cosmo Chemical Laboratories, Brooklyn, have been purchased by Charles of the Ritz. Dr. J. B. Nagler, who was formerly associated with Cosmo Chemical is now associated with Charles of the Ritz at 9 University Place, New York.

Dr. Glen Smyth

Dr. Glen Miller Smyth, fifty-seven, technical consultant for the Calco Chemical Division of the American Cyanamid Company of Bound Brook, N. J., died June 4 at the Muhlenberg Hospital.

Dr. Smyth assisted in founding the Beaver Chemical Corporation in 1918 and was resident director until 1930, when the corporation was absorbed by the Calco Chemical Company. From 1916 until 1918 he was the chief chemist of the Union Dye and Chemical Co.

A native of Horton, Kan., he was educated at Stanford University and the Charlottenburg Technical Institute in Berlin. He received his master's degree from Harvard in 1916. His wife, son and mother survive.

William Patten

William Dunn Patten, eighty-one, said to have discovered the formula for baking powder, died at his home in Los Angeles, June 4. He was the owner of the West Vaco Chlorine Products Company and the Willara Corporation at 405 Lexington Ave., New York.

Mr. Patten was born in Brooklyn, completed his formal education in high school. He was a self-educated chemist and began his business career with the chemical firm of Alexander J. Howell in 1888.

Wilbur H. Hyde

Wilbur H. Hyde, retired president of the Abner Royce Company, manufacturer of cosmetics and perfumes died at the age of seventy-five in Cleveland. Mr. Hyde was formerly secretary of the National Association of American Perfumers and was twice president of the Cleveland Advertising club.

Vail P. Weber

Vail P. Weber, midwestern manager for Bristol-Myers Company, died May 25 at St. Francis hospital, Evanston, Ill. He was fifty years old.

VAIL P. WEBER

Mr. Weber had been with Bristol-Myers since 1929, and was appointed midwestern manager last March. He had previously managed drug stores in Chicago for several years.

Joseph D. Bohan

Joseph D. Bohan, forty-one, vice president of Sterling Drug, Inc. in charge of its Centaur Company division, died in Atlantic City while attending the annual convention of the Proprietary Association of America. His home was at 856 Forest Ave., Rye, N. Y.

Mr. Bohan had been in the drug business for twenty-four years, starting in 1923 with the Kolynos Company. He was assistant export manager in 1928, when the American Home Products Company assumed control of the concern. In 1932, Mr. Bohan joined Sterling Drug, Inc.

Surviving are his wife, a daughter and a son.

E. T. Kirkland

E. T. Kirkland, president of Irwin, Neisler & Co., Decature, Ill., died May 13 from a Coronary thrombosis. Mr. Kirkland was a well-known figure in the pharmaceutical business and was a member for many years of the American Pharmaceutical Manufacturers' Association.

William A. Bradley

William Arnold Bradley, sixty-nine, retired perfume manufacturer died May 24, in Poughkeepsie, N.Y., at the St. Francis Hospital.

Mr. Bradley was president for twenty-three years of Bradley-Perfumer, Inc., which was established in 1877 and disolved in 1934. In 1911 Mr. Bradley was president of the American Perfumers Association and later held offices in the American Manufacturers of Toilet Goods Association.

Mr. Bradley was graduated from New York University in 1897. In 1908 he helped organize the Beaverkill Trout Club, one of the finest such clubs in the country. He also designed the widely used Bradley dry fly for trout.

Mr. Bradleys' wife died several years ago. Four sons and a brother survive.

John N. Staples

John Norman Staples, sixty-five, a director and former senior vice president and treasurer of E. R. Squibb & Sons, died at the Doctors Hospital, New York.

Mr. Staples retired from active participation in the management of Squibb & Sons last October, when he became ill. He continued however, as president of the Jones Estate Corporation.

Mr. Staples was born in Greensboro, N. C., the son of John and Mary Staples. He started work at the age of twelve after attending public school in Greensboro for a few years.

He worked for the American Tobacco Company and then became associated with the United Drug Company. He joined Squibb and Sons twenty years ago and became a member of the board of directors.

Surviving are his wife, a sister and two brothers.

Thomas S. McCarthy

Thomas S. McCarthy, "Mac" of the Oil, Paint and Drug Reporter, died May 9 in St. Mary's hospital, Bklyn. He was forty-two years old.

Mac was named managing editor of OPD in 1945, fifteen years after becoming associated with the journal as a reporter. Prior to that he was with the International News Bureau and the Philadelphia Evening Bulletin.

A native of Philadelphia, he graduated from Villanova College in 1926 and received a degree from the Wharton School of the University of Pennsylvania the following year.

He was a member of the Chemists' Club and the Salesmen's Association of the Chemical Industry, in which he was very active.

Surviving are his wife, the former Anne M. Hediger; two sons, a sister and a brother.

HIGH COSTS

and a "more choosy" buying public

There's a combination which has many a manufacturer knitting his brow. But quite a number are already meeting this problem by modernizing their packaging departments.

Why not investigate what our modern machines could do for you? These machines are far ahead of pre-war models. They are faster, and require less supervision . . . Are easier to adjust for different package sizes . . . Require less shut-down time for cleaning and lubrication . . . And worthwhile savings are also being made by the elimination of re-wraps and by our advanced paper feeds which ensure a perfect package with a minimum of material.

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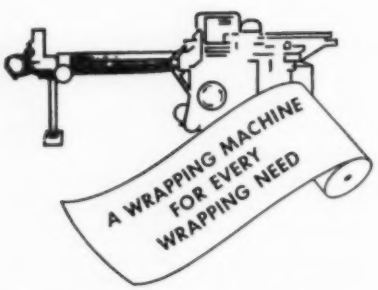
The economies made by modern wrapping machines will, in many instances, more than pay for the use of a more colorful wrapper, for the addition of a transparent wrapper to keep the goods in better condition and improve appearance, or for some other type of improvement that will aid sales.



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Over a Quarter Billion Packages per day are wrapped on our Machines

Production Forum

By Francis Chilson

Industrial Consultant

Hello Blokes!

Here I am down on the bottom of the world, looking up your kilt, as we say in Australia. Relative to you I am, in a manner of speaking, upside down. This probably explains why down here they do so many things bass ackwards. When you've got to walk upside down on the bottom of the world with your head swinging off toward the general direction of the South Pole it's to be expected that things might be done differently. Well, not all things, but some. When I first came down I had to put glue on my feet to keep from zipping off into space like a bloody rocket. Some said it was the Scotch in me. Anyway, down here they walk on the wrong side of the street; they drive on the wrong side of the road. Their motor cars, which in some instances aren't so much, have the steering wheels on the wrong side.

But by krist when the Aussies walk; they walk and no fooling. Everybody seems in a hell of a hurry to get somewhere. I never saw any people walk so fast. In the hotel where I am staying (The Australia), if you ring for a waiter or a porter (a bell-hop), he'll be there before you've had a chance to put the phone down. All hotel servicemen have their own master keys and the practice is to knock once and, before you can say "come in," they're in. So if you're traveling in Australia with your secretary—I mean if your secretary is traveling in Australia, it would be well to advise her to have a spot of clothes on when she rings down for room service. If such a practice were followed by hotel men in the U. S. I'd have been in a bit of a jam once or twice in the Park Central.

The Australian language is somewhat different from ours. Down here you do not "date" a girl since "date" is synonymous with "goose" in our language. You'd be careful about referring to anybody or anything as "bum" because the bum is that part of you which follows after. Likewise you'd never say to a girl "Are you rooting for the Yanks?" because rooting is a form of exercise which is not discussed in polite society. Delightful sport though. As to the word "fanny"—well, I can't explain that to you until you've grown up.

Melbourne delighted me. We have no city like it in America in any respect. If you take Los Angeles, add the best part of Milwaukee, season it with parts of Portland, Oregon, in rose time, add a touch of Washington and a dash of Scarsdale; then cap it off with Grant's Tomb and you've got Melbourne. The city is clean and spacious. It's the only one I've been in where virtually all streets are very wide. What they call a slum district here we'd call a good middle class section. The workmen's homes, renting for about twenty dollars a month, are small, clean and neat and invariably surrounded with a bit of garden. A workman may get drunk and beat his wife but either he or she will look after their garden.

A workman gets the equivalent of twenty dollars a week; a factory girl about twelve; a qualified and experienced chemical engineer would receive about two thousand dollars a year; a plant manager from three to five; a top executive from five to ten thousand. A ten thousand dollar a year bloke down here is some pumpkin.

A tailor-made suit of the best English materials (made of Australian wool) would cost about fifty dollars maximum. You can get a pretty fair suit tailor-made for half as much. Custom-made suits cost from twelve to twenty dollars each. The finest shoes made in Australia cost seven and a half dollars a pair.

Food is cheap. A lobster dinner with trimmings costs about seventy-five cents. A martini costs about fifteen cents. A bottle of Scotch about four bucks.

The factories of Australia are on a scale with the population. Many American companies are here of course. But unlike many of ours, the Aussie plants are generally clean. Here they do not permit rubbish heaps to accumulate around their plants. I visited an Australian candy plant, and while the buildings were all wrong and the layout terrible, it was cleaner than most of our candy plants by a helluva sight.

As we flew up Sydney Harbor en route to Melbourne I was thrilled with its extraordinary beauty. I'd seen colored photos of it of course but I was unprepared for

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FOR SMALL SCALE OPERATION OR EXPERIMENTAL TABLETTING

Eureka single-punch bench model Tablet Machine

or

"BB-2" Rotary Tablet Machine

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Whatever your tabletting needs — whether for small production or experimental and research work, or for high speed, large scale production — there is a Stokes Tablet Machine to meet them.

For over 50 years Stokes has designed and built machines for compressing pharmaceutical and other tablets — machines which, today, are standard equipment throughout the world.

These machines embody many unique features. Typical are the Automatic Excess Pressure Release on rotary and larger single-punch models; Anti-Capping Devices; and means of producing ball-shaped and perforated tablets.

Write for Catalog No. 480-T describing Stokes Tablet Machines, auxiliary equipment, and technical and laboratory facilities available.

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F.J.Stokes TABLET MACHINES PHARMACEUTICAL EQUIPMENT FJS Est. 1895

the reality. It's worth a trip down to the bottom of the world just to see Syndey Harbor.

Sydney, like Melbourne, is clean and filled with garden bowered houses with red tile roofs. The streets of Sydney, unlike those of Melbourne, are narrow and crooked. The two cities are different. Melbourne is staid and conservative and it controls the money of the country. Sydney is a bit razzle-dazzle like a good many American cities.

Funny thing about Sydney. Two business men—one from Sydney, one from Melbourne—told me exactly the same thing, namely, that if you do business with a Sydney firm get it in writing. If you do business with a Melbourne business man his word is as good as an iron-bound contract. Thank God my client is in Melbourne.

The Frank Lloyd Wright of Australia, Mr. Harry Norris, told me that in thirty years of practice in Melbourne he had never had a signed contract with any client. It is not that Sydney business men are dishonest or shady; it's simply that they try to do things so fast, ala americaine, that you've got to pin them down in writing so they won't forget what they agreed to do. It's that way everywhere in the States. Melbourne business men like to do things slower and they like to do business with the same blokes, year after year.

It is needless to say the Nicholas people have treated me royally. What with whiskey and candy and fruit and flowers in my suite when I arrived, they made me feel like the bloody Duke of Windsor. During the day they worked hell out of me and then entertained me all night. At the moment I am as a consequence, a bit groggy.

What impresses me about Australians is their goddam punctuality. When they say "I'll have a car around for you at eight forty-five." That's what they mean. Not eight forty-four nor eight forty-six but eight forty-five pronto! It you're not Johnny on the spot they mutter, "Where is the bloody _____ anyway?"

It's been good fun working with my old friend Artie Lightfoot, (Artie from The Antipodes) again. We are planning to build here on a thirty acre site the headquarters plant of Nicholas Pty Ltd. The avowed purpose of the directors is to create a plant that will be superior in all its appointments and appearance to any pharmaceutical plant in the world.

Mr. Harry Norris is the architect and yours truly is to handle the site development and the interior layout. It should be some show. The out of door amenities (personnel services) will include, football field, cricket pitch, tennis courts, putting green, shuffle-board courts, etc. Inside the amenities will include complete medical services including dentistry and X-ray; cafeteria, dance floor, billiard room, ping pong table, stage.

The plant proper is to be windowless, sound-proof and air-conditioned (and one story) and plans are laid for recessed murals in the walls of the packaging department. You blokes had better get on your horses or these blinkin' Aussies will go past you so fast you'll think you're standing still.

Now about Nicholas. They are, if not the largest, certainly they are nearly the largest, manufacturer of aspirin in the world. They have also a very large ethical division. So altogether the business amounts to many millions throughout the world. They have plants in Australia, England, France, South Africa, Singapore, Java. Not branches—but complete plants. They have an interesting idea in connection with the Melbourne plant. A basic design and layout for the home plant is to be made and it will be the prototype for all the Nicholas plants throughout the world. The scale will simply be reduced to suit local conditions but every plant will look alike both inside and out. The Melbourne plant, incidentally, is only the beginning. Plants are to be built in Ireland and a new one in Paris.

These Aussies may be hanging upside down on the bottom of the world like sloths hang from trees in Africa, but they are anything but sloths when it comes to hard hitting business. It may interest you to know that Nicholas Ltd. is only thirty years old but it is already one of the dozen largest pharmaceutical firms in the world.

Watch their smoke!

Australia Review

Anyone who visits Australia will be convinced that here is the ultimate outpost of western civilization. It is more than that; it is America's uttermost frontier. Lying as it does at the foot of the seething continent of Asia in the shadow of hungry Russia, the economic and military importance of Australia cannot be over-estimated. Unlike any other South Pacific land mass Australia is large enough and rich enough in food and natural resources to serve as a base for military forces larger than her own population. In this respect indeed she served us well in the last war.

In natural resources Australia is enormously rich but undeveloped. She has whole mountains of copper and iron and other metals. She has everything but oil, and several American oil companies have prospecting parties out now. At the moment, indeed, one test well is being sunk. For some strange reason this was not done before. Her hardwood timber resources are immense.

But Australia needs people and she needs money. Therein lies America's opportunity. Australians like us; we like them. She'd like to get the people and the money from us. It would make the bond between us stronger, for Australia knows that Britian in the last war was compelled to run out on her, just as she will be compelled to do so in the next. But in the meantime Britain is salving old sores by an unremitting and continous propaganda. Not a radio program goes out to the children without some reference to loyalty to the royal family. The papers are full of it. And preparations are going forward for a visit by the royal family some time soon.

One cannot blame the British. Churchill was quite right when he said he wasn't elected the King's first minister to preside over the dissolution of the British

Empire. More power to him! And to them. Churchill's successors agree in this one respect with the old Tory.

But Australia has plenty of resources for all. She needs all the money, talent and people that both the U. S. and Britain can invest in her. Right now the position is tough. For Australia has pulled in her belt by joining the dollar pool to help Britain. She has continued food and other rationing to help the Motherland. Her business men find it enormously difficult to carry out conversion and expansion plans because their country has voluntarily joined the dollar pool against their own immediate interests.

Our inability to get dollars out of Australia immediately should not deter us from getting in with both feet while the door to opportunity is still open. Don't forget Australia has the arable land area and the natural resources to support a population of a hundred million people. Most of us know nothing about Australia. I didn't until I came down here. I knew vaguely that its land area is almost as large as the U. S. —most of it desert—so I thought. I imagined it to be filled with kangaroos and rabbits and sheep and a good deal smaller than it is.

When it became known that I was to come down here friends of mine in the trade flocked around in numbers suggesting that I have a look at branches in Sydney, Brisbane and even Perth. Apparently the idea was that these cities are suburbs of Melbourne. Sidney is about three hundred miles distant and Perth two thousand. It was like saying to me, "When you're in Chicago drop in and see my man in New Orleans and if you have a night off look up my brother in Los Angeles."

One way in which we can help Australia immediately is to eliminate the wool tariff. We could get immediate payments out of Australia if we could buy Australian wool and import it, but we can't simply because the American people are being taxed through the tariff to protect the interests of a handful of wool growers in the middle and northwest. Moreover we are forced to use inferior wool because the finest wool in the world is grown in Australia. You and I have to pay exorbitant prices for woolen suits made of inferior wool simply because the hired heel of the wool growers association knows how to keep himself in office—at your expense.

As an industralist I can see that the manufacturing opportunities here are immeasurable. Industrially Australia is today about where the U. S. was after the Civil War. She still imports an immense amount of raw and manufactured products which she could and someday will make. Not only does Australia provide opportunities within its own borders but its location makes it a strategic base in which to manufacture for export to the Asiatic mainland. American companies manufacturing in Australia for export to the near East would have an immense freight advantage which they do not now possess. This is of particular importance to the drug and cosmetic industry.

Australia's desert is about three hundred miles wide at its widest point and about a thousand miles long. The deserts of our own southwest are almost as large. A major part of the Australian desert could be irrigated. Engineers have made plans but their fruition must await the economic development of the country. In the meantime an immense population can be supported on the fertile rim.

Australia has problems with ruthless, wasteful farmers who have caused soil erosion by over-grazing and wasteful farming practices as well as by frightful waste of timberlands. Their farmers are just as stupid as ours.

While I haven't seen much of Australia—just a mere chunk in the southeast corner—I have read much about it since coming here; I have seen excellent photographic studies of all parts of it. It is still an empty country.

Imagine a ranch (a station down here) so big that during a round-up, the rancher discovered a drove of several thousand horses he didn't know he had! On one relatively small ranch (twenty thousand acres) owned by a member of the Nicholas family a hundred and fifty thousand rabbits are killed each year. The rabbits are a nuisance down here and there are firms which deal exclusively in rabbit meat and fur.

What surprised me most of all was the semi-tropical climate of Melbourne. Down here the thermometer seldom drops below 40 F which means they rarely have frost. Palms grow along the avenues and flowers of all kinds bloom most of the year. Fruits of every kind tropical and otherwise are available in profusion including a number I had neither heard of nor eaten before.

Australians are like us in attitude. They are more like us that their British and Irish forebears and they go for tall stories which make those about Paul Bunyan seem modest.

Harry Norris, the top Australian architect, can outmunch Baron Munchausen. When I spoke of the profusion of rabbits, he, without smiling and with desk thumping emphasis, told me that the drought once had killed all the rabbits in north Australia. He said at that time he had occasion to fly across the country and "when you looked down you couldn't see the ground because it was covered with dead rabbits for a thousand miles in every direction. And, by krist, you could smell the stink of them rotting at sixteen thousand feet in the air!" I told him the story was a bit high.

Finally as to the labor situation. From what I'd read about Australian strikes I had supposed the labor situation to be worse than ours. It isn't nearly as bad. They have a lot of short protest strikes but few very very long ones as we have had. And the Australians hope we'll keep Harry Bridges. They don't want him back—except, possibly, in a coffin.

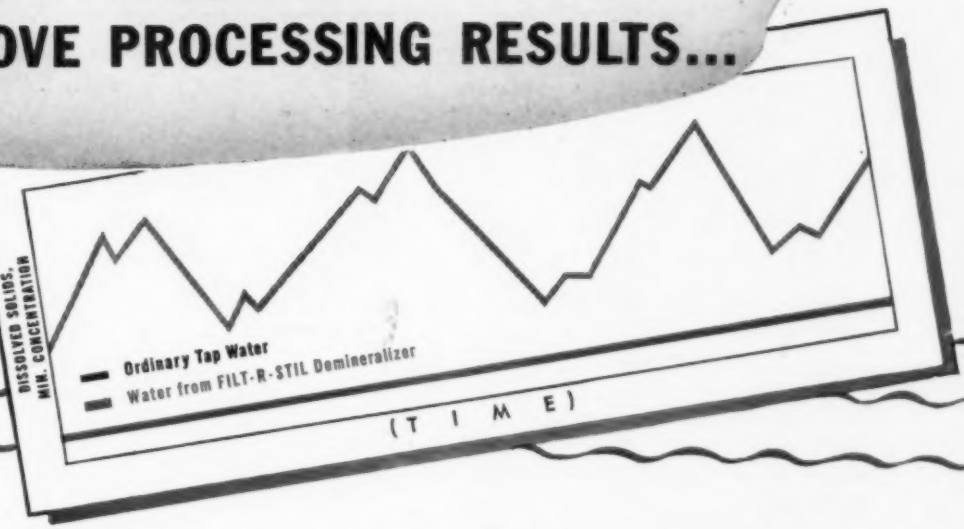
Long live Australia! Fine country, fine people, fine women, fine food and drink!

Electronic Ampoule Inspection Machine

Frank Taylor, Contact Committee Chairman, has turned in a progress report on the RCA Electronic Ampoule Inspection Machine. According to Frank's

MINERAL-FREE WATER

CAN IMPROVE PROCESSING RESULTS...



New

FILT-R-STIL* WATER DEMINERALIZING UNIT ELIMINATES

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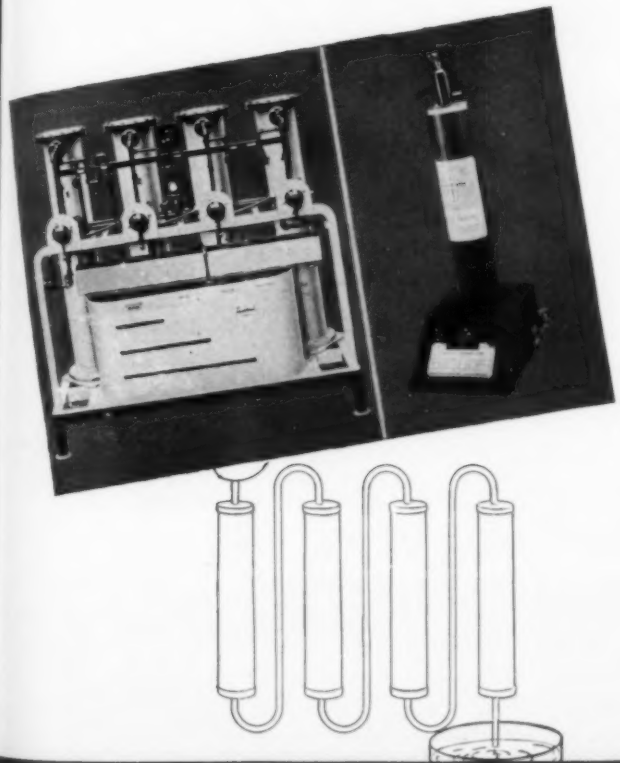

How a FILT-R-STIL Demineralizer works . . . Units consist of four "beds" of IONAC* Resins which, by principle of ion exchange, successively remove the dissolved minerals from water. Water is fed through a conductivity cell which indicates quality of water being produced. When resins are exhausted, a regenerative system restores units to full operating efficiency.

You can count on substantial economies in the production of mineral-free water when you install a Cyanamid FILT-R-STIL ion exchange demineralizing unit. This is because, among other things, these units are completely self-contained, simple to install, and easy to operate and maintain.

Available in types and sizes for *every* need, FILT-R-STIL Demineralizers use IONAC* Resins which remove ionized solids, completely or partially—*as specified*—without imparting color, odor, or taste to the solution treated.

The process can be compared to a simple, cold filtration since no heat or cooling water is required. In fact, so simple is the operation that the only requirements are connection to a raw water source, an electrical outlet, and a drain. •

Mail coupon now for complete data on FILT-R-STIL Demineralizers.

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Typical of the *extra* care we take is this scene in our laboratory filling room. Here tubes are filled when food products are to be tested. So that mold spores will not affect the results, the room, the utensils, the work surfaces are sterilized.

We will be glad to tell you which type of aluminum tube, plain or interior coated, is best for your product. Perhaps we can show you how the addition of an inhibitor or a slight change of formula will reduce your packaging costs.

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report, the machine has reached the point where the detection of glass or crystalline particles is easy. The report states further that progress has been made in the detection of fibers and also in the elimination of the difficulties involved in handling colored solutions. According to FDC Reports' summary of Frank Taylor's report—"Whether the operation of the eventual machine will be entirely mechanical or partially hand, will depend entirely on the expense involved. It was pointed out that complete mechanization may involve such a great expense that it would be better to handle part of the operation by hand."

That's exactly the point I brought out when this foolish development was undertaken. If such a machine has to be hand fed, the ampoules may as well be inspected manually. The real problem in ampoule protection is not in inspection at all. Inspection is easy. It is the number of rejects which everybody suffers. Percentage of ampoule rejects will run anywhere from five percent in some plants to fifty percent in others. It's no trick at all to reject an ampoule. A good operator can spot a reject very qu'ckly. If the $30,000.00 which the two associations put into this abortive development had been spent in research work to determine the cause of rejects, the money would have been more constructively used.

To be successful, an ampoule inspection machine should:

(a) Feed itself automatically from a hopper full of ampoules.

(b) Should detect and reject automatically, glass particles, lint, discolorations, flaws in the glass which later on will cause breakage, charring in the necks of the ampoules, restricted necks, crooked necks, cloudiness in the solutions.

(c) Capacity of such a machine should be not less than fifty ampoules per minute.

(d) The machine should be adjustable so that all sizes of ampoules can be inspected from ½ cc. upward.

(e) The adjustment of the machine from one size ampoule to another should not take more than one-half hour.

All electronic equipment is expensive. If a machine is ever developed that will perform all these requirements, it will cost somewhere between fifteen and twenty-five thousand dollars. Then—who the hell can afford it?

If a simple electronic gadget or any kind of mechanical gadget could be developed which would cost not over one thousand dollars per unit, and if further, the F.D.A. could be persuaded to accept inspection by such an electronic device as standard for the industry, then I'd be for it hook, line and sinker, especially if with such an apparatus all sizes of ampoules could be inspected at the rate indicated above.

New Stokes Catalog

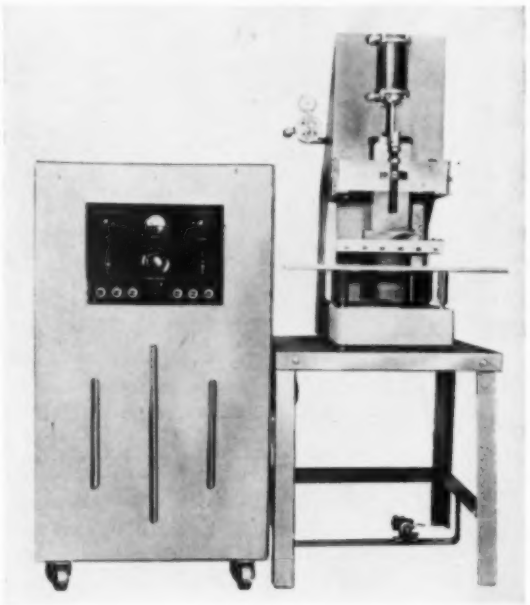
A new catalog on dry-freezing equipemnt has just been released by F. J. Stokes Machine Co., Tabor Rd., Philadelphia.

Equipment described in the catalog is available in capacities for hospital use, as well as large units for commercial production of chemo-therapeutics, pharmaceuticals, chemicals, penicillin, serums, and other biologicals. Along with illustrations of equipment developed as a result of twelve years of research by Stokes engineers, there are tables and charts showing duration of potency of dried products.

Electronic Heatsealer

The Kabar Manufacturing Corporation, 100 W. 42 St., New York, recently announced the release of a new plastic heat sealing machine which should be of service to the drug and cosmetic manufacturer

The machine can be used electronically heat seal almost all types of thermoplastic materials. Some applications have been in the closure of tablet containers made of fine gauge plastic film, and in the closure of



plastic packages to insure air-tight and water-tight seams.

Chief features of the electronic heatsealer is the low operation costs and the simplicity with which they can be operated. The machines are complete production tools, installable by plugging into 110 volts, 60 cycle AC current.

Combination Dump-and-Scale Truck

Yale & Towne announce a new and versatile combination of three different handling tools in a single mobile unit for weighing out batches, transporting them about the plant, and dumping them into furnaces, hoppers or tanks.

The unit embodies a shock absorbing dump-bucket, a platform scale and a standard electric load carrier truck. Called a "Portable Batching Scale-and-Dump Combination," the truck has already found utility in

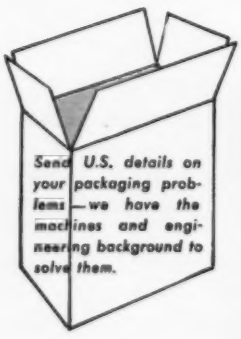
ANNOUNCING A NEW AUTOMATIC

TABLET BOTTLING MACHINE

Now the tedious, time-consuming operation of packing tablets into bottles has been simplified. With the new Model TM Automatic Tablet Bottling Machine developed by *US*, tablets in a wide range of sizes can be counted into bottles quickly, accurately and *automatically*.

The new Model TM is a unique machine in that it requires but one operator whose only job is to place empty bottles on the feeding table of the machine. From that point on the bottles are automatically fed into the machine, filled with an accurate count of tablets and discharged onto a conveyor which moves them to the next operation. The entire machine is functionally designed for foolproof, fast operation. The feeding table is segmented for easy, exact bottle loading, while tablet counting is a purely mechanical function which cannot err. The new Model TM is versatile and will handle bottles from 1″ to 2¼″ in diameter that are up to 5″ in height, requiring tablet counts of from 12 to 300. Production is pleasing too. The TM will deliver up to 120 filled bottles per minute.

For complete details on this faster, more economical and more accurate tablet bottling machine, write US today.



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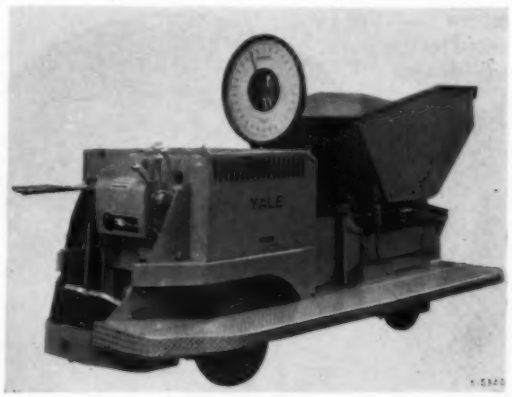
chemical compounding, and electric-furnace metallurgy. Opportunities in other processes and in general reclaimable industrial waste handling are numerous.

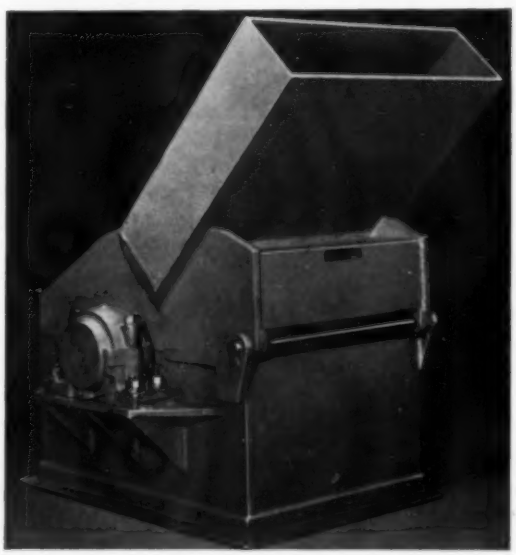
The forty cubic foot dump hopper is supported on the platform of the scale by means of four heavy coil



springs which give the scale protection against shocks. The scale has a twenty-four inch diameter shatter proof glass protected dial which is graduated in five pound gradations and records, loads weighing up to three thousand pounds. The truck itself embodies all the advantages of great power, simple control, speed and maneuverability. For further information write to Yale & Towne Mfg. Co., Philadelphia Div.

Double Action Hammer Mill

A double action hammer mill, especially designed to crush whole compressed caked material such as chemical and industrial products that are made in large slabs, has been developed by the Buffalo Hammer Mill Corp.



The hammer mill is equipped with a chute-type feed which is set at an angle to the rotor. Whole cakes or slabs are fed into the battery of revolving hammers which first break the material off in small sections. These pieces are then pulverized against the breaker plate and are carried over the grate bars for final sizing. This double action combines the preliminary breaking with average finish grinding.

The one-piece reversible hammers of special alloy steel provide long life, even wear, less vibration, increased bearing life without breaking or chipping. A built-in trap insures protection against possible damage caused by metal or foreign material that may enter the mill from time to time.

Grate bar spacing may be adjusted simply by adding or removing spacers for fineness of grind. When a very fine finished product is required, the ground material can be screened externally and the tailings fed back into the mill or into a small finishing mill.

For complete information on this Model W-30 write Buffalo Hammer Mill Corp., 27 Washington St., Buffalo 3.

Direct-Reading pH Meter

The industrial model direct-reading pH meter, made by Cambridge Instrument Co., 3035 Grand Central Terminal, New York 17, for measuring acidity and alkalinity can either be used as a laboratory instrument for tests of small samples, or as a portable instrument for making spot-checks. Its weight of only ten pounds, and the mounting of the electrode system as an integral part of the meter, make it convenient to carry.

As a continuous indicator on processing operations, the meter can be suspended over a vat or tank, hung from a rack, or mounted on the wall. On such processing applications it can be used directly in grounded solutions as the glass electrode is completely shielded. Extra length lead wires permit use of electrodes at any desired distance from the meter.

Batteries are completely eliminated, operation is on any 110-volt 50 or 60 cycle A.C. outlet, a voltage-regulator corrects for fluctions from 100 to 130 volts.

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All Hubbert Kettle Shells are seamless, die drawn from one single sheet.
Shells have no welds to crack, corrode, contaminate or leak
Kettles — Tanks — Agitators — Valves
Special Equipment to *Your* Design in
Stainless Steel—Nickel—Monel

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Hubbert Kettles built to ASME & CANADIAN Codes.
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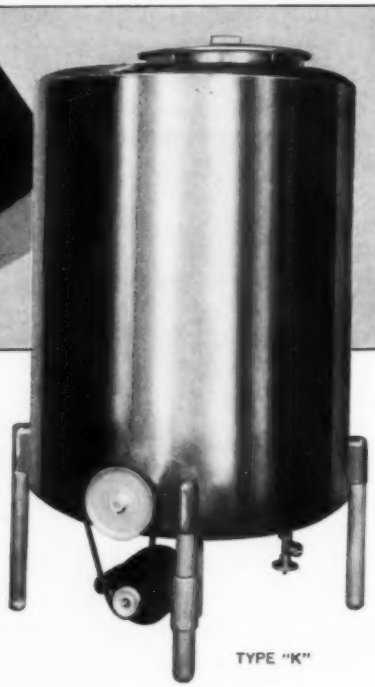
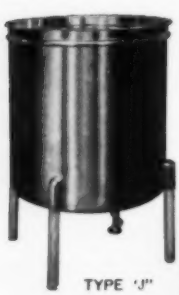
Your MIXING or STORAGE PROBLEMS can be Solved with a STAINLESS STEEL SAN-I-TANK



TYPE "K"

Regardless of what your chemical storage or mixing problem is, a San-I-Tank can simplify it for you—economically and safely. All San-I-Tanks are built by tank specialists. Constructed throughout of 18-8 Stainless with all welds ground smooth and polished. Completely self-draining, sanitary and rust proof. Many extras available such as covers, motors, agitators, etc. Let our engineers give you recommendations on your tank problems.



TYPE "J"

MANY TANKS IN STOCK FOR IMMEDIATE SHIPMENT — *Tell Us Your Requirements.*

We carry a complete line of stock sizes in San-I-Tanks. If we do not have a Standard tank to fill your need our Engineering staff is at your disposal to design and build a tank best suited to your requirements. If it's a tank problem, get in touch with Metal-Glass today,—we can solve it for you.

METAL-GLASS PRODUCTS CO.
Dept. D BELDING, MICHIGAN

THE ROSS WAY IS THE NEW WAY

ROSS

can reduce your costs
speed your packaging
eliminate manual setting up of cartons

This ROSS Semi-Automatic Cartoning Machine sets your carton up, and tucks one end ready for hand loading or hand filling on any semi-automatic filler now in use. The ROSS machine can also discharge the carton in an upright position to belt conveyor feed of automatic filler.

The ROSS machine is built of standardized precision parts made to close tolerances. All moving parts are self-oiled. Speed, versatile adjustability through ROSS precision dial controls allows carton size changes to be made within five minutes without the substitution of interchangeable parts. The Master Speedranger gives speeds from 40 to 120 a minute or greater.

Additional ROSS *features include*
PRECISION PARTS . SELF OILING . DIAL CONTROL
VERSATILE ADJUSTABILITY . MASTER SPEEDRANGER

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SUBSIDIARY OF THE ROCKWELL MANUFACTURING COMPANY

A. H. ROSS & Co. Inc.

PACKAGING MACHINERY · LUDLOW, KY.

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A. H. Ross Co., Inc., Ludlow, Ky.

Gentlemen: Please send me without obligation, Catalog and Data on ROSS Automatic and Semi-automatic Cartoning Machines.

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Finger tip opening

Sterile sealing

High speed application

Your product...

just as you made it

Alseco Stericaps make possible the high speed, low cost sealing of products that *must* be kept sterile. In use they are easy to open, yet provide positive protection for pharmaceuticals and biologicals until the last c.c. is used.

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ALUMINUM SEAL COMPANY
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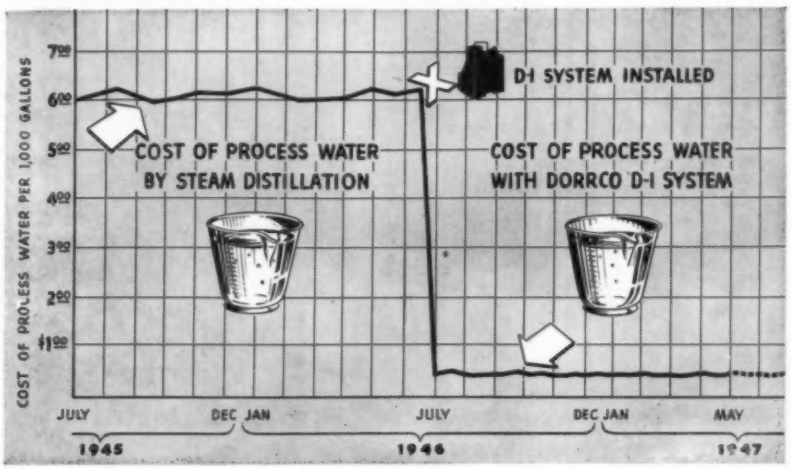
Interested in cutting process water costs... LIKE THIS?



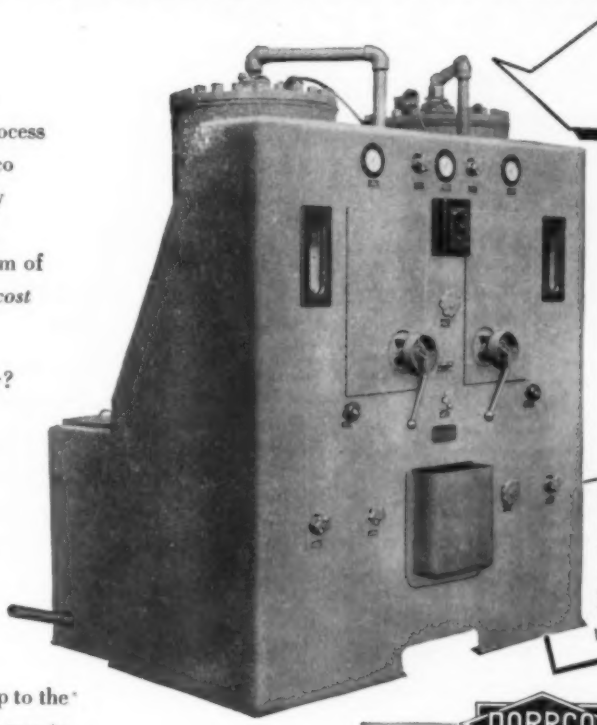
A TYPICAL CASE HISTORY... showing graphically how one process water user in a chemical industry cut water costs by the installation of a Dorrco D-I "E" Unit.

If so...check the DORRCO D-I SYSTEM

Keynote of economy in the production of today's process water is the de-ionization process . . . exemplified at top efficiency by the Dorrco D-I System. Using high speed, high capacity ion exchange resins, the Dorrco D-I System produces specification water with a maximum of operating simplicity . . . *at a fraction of the cost of other methods.*

How about comparative purity of D-I Water? The Dorrco D-I System will (a) remove simple hardness (b) decrease bicarbonate alkalinity and reduce total solids, or (c) remove virtually all ionizable solids to produce the equivalent of distilled water. In most cases it will produce a water of standard U.S.P. distilled quality . . . *at a fraction of the cost of distillation.*

If you need process water of any purity . . . up to the equivalent of distilled quality . . . it will pay you to investigate the dollar-saving Dorrco D-I System. For detailed information phone or write our nearest office.



The Dorrco D-I "E Unit" —available in 6 sizes with capacities from 100 to 1500 gallons per hour.

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Filpaco
(FORMERLY FILCO)

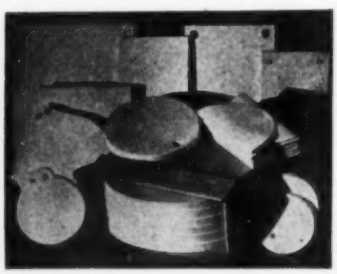
for

IMMEDIATE DELIVERY!

"Common Sense" FILTERS

- Designed for filtering moderate quantities of liquids.
- Operated with either filter paper, asbestos pads or filter cloth.
- Ample space is provided if filter aids or activated carbon are used in processing.
- Filter area 130 square inches.
- Capacity for fairly clear water at 25 lbs. pressure is 300 gal. for the first hour.
- Equipped with or without pumping units.
- Filter medium can be changed without disconnecting any fittings
- Easily cleaned.
- Can be operated by unskilled labor.

FILTER PAPER



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★QUALITATIVE PAPERS
★INDUSTRIAL PAPERS
★FOLDED PAPERS

Features: Manufactured from the finest materials available under rigid specifications for accuracy and dependability . . . Papers in light and heavy weights, with slow and fast filtering speeds . . . Large stock maintained for immediate delivery . . . Cut to any size and pattern . . . Samples furnished upon request for experimental purposes.

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- Standard 10 ft. straight sections.
- 90 degree cruves.
- Permanent and portable adjustable stands.
- Standard conveyors are 12" wide with 6, 8, 10 or 12 wheels per foot
- Sturdily constructed of channel steel frames; ball bearing, hardened steel wheels; cross-bracing for rigidity.
- Orders filled without delay!
- Write today!

Other Filpaco Products: Stainless Steel Sanitary Storage and mixing tanks, Filter Presses, Syphon Fillers, Portable Agitators, Sanitary Fittings, Sanitary and Industrial Pumps, Tygon Tubing, Filter Cloths and Bags, Asbestos Pads, Filter Aids.

The FILTER PAPER Co.

2428 S. Michigan Ave., Chicago 16, Ill.

HOW TO PACKAGE
Powders at Less Cost

1. Operator places empty container on packing platform which rises to filling position.

2. When container reaches filling position, filling starts automatically. Operator takes another empty container with right hand.

3. Filling stops automatically at predetermined amount. Operator replaces filled container with empty one and filling operation is repeated.

The new Triangle Model U-1 Auger Packer is 25% faster than previous models . . . will package all powdered materials into cans, cartons, bags, jars at 20 to 30 per minute. Range is 1 oz. to 5 lbs. Operation is easier, reducing operator fatigue. A NEW BULLETIN describes this cost-cutting unit. Write for a copy. *Other models handle to 50 lbs.*

TRIANGLE PACKAGE MACHINERY CO.

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BRANCHES IN PRINCIPAL CITIES

EPPENBACH HOMO-MIXER MAKES DISPERSIONS WITHOUT INCORPORATING AIR

1. Turbine head near bottom of tank starts a converging horizontal flow which carries sedimentary material into close-fitting rotor vanes.
2. Inflowing "slurry" is violently agitated at high velocity and projected upward toward surface.
3. A submerged baffle-plate deflects the rising current horizontally toward sides of tank, thence flowing downward toward bottom.
4. Rapid down-flow submerges and wets out floating material, including additives being fed into the mix.
5. The entire batch is deflocculated resulting in a perfect dispersion.
6. No surface boil . . . no vortex . . . NO AIR DRAWN IN.

The Eppenbach HOMO-MIXER is built on an entirely new principle. Whereas ordinary mixers create a vortex in the material that pulls in air, the HOMO-MIXER draws only from the bottom of the tank. Entrapped air tends to cause separation and splitting, and frequently oxidizes the product.

Furthermore, the HOMO-MIXER does not require a high head of liquid to give efficient mixing action. It is possible to process material in a tank at a depth just great enough to cover the mixing head. Fits tanks of all types and shapes . . . no clamps required . . . no special angle of installation.

Write for complete details of this mixer—"the only one of its kind." Ask for Catalog No. 402.

Eppenbach HOMO-MIXERS are available in a complete range of sizes for laboratories and production plants. Capacities range from 2 to 2,000 gallon batches from ¼ to 25 H. P.

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Processing Equipment for Over 30 Years

Precision Weighing Cuts Production Costs in Compounding and Packaging — do it by EXACT WEIGHT

Model UAB 9051 Shadograph . . . a new EXACT WEIGHT Scale for Penicillin packaging. Dial reading made from mirror mounted above dial graduated 75 mg under and 25 mg overweight. Magnetic damper checks indicator to four beats for speed of operation. Current—110 volt, AC standard. Capacity—1200 MG . . . sensitivity 2 mg. (Under glass and protected from air currents 1 mg.)

EXACT WEIGHT Scale Model No. 109B is expressly designed and built for tablet and capsule counting by weight. The operation is generally handled by actually counting the sample number of tablets or capsules wanted and placing them in the left scoop. The right scoop is used for counting, operation after operation. Nickel Silver Scoops in three sizes: A—5″ X 9″; B—5½″ X 11″; C—6½″ X 13″.

Standard capacity of scale 3 lbs. Other weights to specifications

EXACT WEIGHT Shadograph—a revolutionary new principle in precision weighing, substituting a light ray for mechanical indication. Electrically operated, noiseless in use, high speed operation, extremely high accuracy. Ideal unit for fine compounding of exacting formulae. Excellent equipment for high speed production line checkweighing. Unit can be supplied with scoop or platter as ordered. Capacity and visible accuracy to specifications of the operation.

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Exact Weight Scales

THE EXACT WEIGHT SCALE COMPANY
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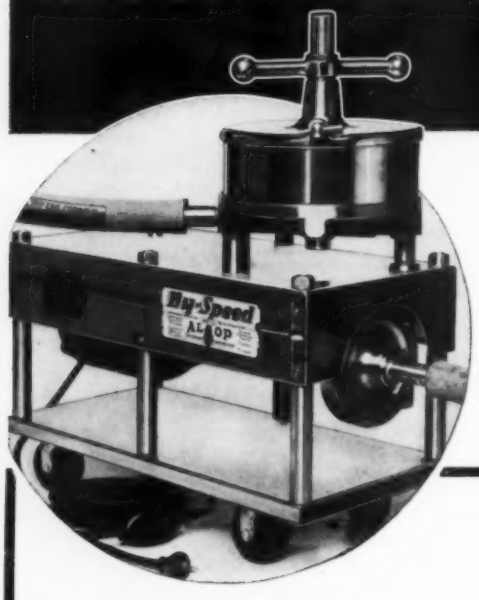
USERS Acclaim the *General Efficiency of* ALSOP FILTERS



Processing men who use *"Sealed-Disc"* Filters are enthusiastic not only about its compactness, extreme portability and low operating cost—they acclaim its general efficiency.

This advanced efficiency, conclusively proved in actual use, comes from the unique *Filtration Principle* used in all *"Sealed-Disc"* Filters.

Whether you filter in variety or volume you'll want the many features found in the *"Sealed-Disc"* Filter.

They can be had in Stainless Steel, Monel Metal, Nickel Plated Brass and Bronze, etc. and in capacities ranging from 1 g.p.m. to thousands of g.p.h.

Send for your copy of Bulletin #745 containing complete information.

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ENGINEERING CORPORATION
Filters · Filter Discs & Sheets · Mixers · Agitators
206 Cass Street Milldale, Connecticut

Eliminate . . .

LOST MOTION

Here, in the new U. S. MODEL B-2 VACUUM FILLER is a semi-automatic machine that eliminates waste motion and idle machine time. Limiting hand operations to mere insertion and removal of containers, this time-saving unit fills two containers simultaneously while operator replaces two previously filled containers with empties. Filling is automatic, continuous, uninterrupted. And U. S. automatic safeguards insure against product waste.

The U. S. engineered vacuum filling principle eliminates cost of installing additional pumping equipment or of elevating liquid storage for gravity feed. The U. S. Model B-2 fills any type liquid or semi-liquid directly from any storage container up to barrel size. Interchangeable filling stems. Fills AGST and any other containers up to 4" diameter.

This compact new filler is invaluable to both small plants of hand-filling capacity and to larger plants as a stand-by unit. Portable. Just plug into nearest electrical outlet. Write for Bulletin B-2.

OTHER U. S. FILLING UNITS:

√ Fully Automatic U. S. Rotary Vacuum Fillers handle any free-flowing liquids, light or heavy, foamy or syrupy. Made in many sizes. Can be operated at variable speeds, with capacity up to 130 containers per minute.

√ Improved model U. S. Siphon Filler for simple, accurate and rapid filling. Filling operation is automatic, while moving containers is a simple hand operation. Handles every type of free-flowing and low viscosity liquid; wide variety of containers from miniatures to gallons. Requires no power.

Whatever your filling requirements may be, U. S. engineers can recommend and supply the ideal units to fit your needs.

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2—Jones packaging machines from 1 oz. to 8 oz.
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5—Stokes & Smith—Day auger type powder fillers—MD.

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Live belt conveyors built to your specifications, complete with workboards, speed reduction unit, completely motorized, reversible switches, built for light and heavy duty.

3—Fred Goat, pneumatic scale, Kramer cappers.
8—Ertel, U. S. Alsop filters with motors and pumps.
10—New stainless steel bowl, 8 spout syphon fillers-covers.

"LITTLE CHAMP VACUUM FILLER"
Little Champ 8 spout straight lined vacuum filler adjustable for filling containers from ½ oz. to gallons for diversified liquids, can be supplied in either bronze tinned or stainless steel. Practically immediate delivery. Visit our showroom for demonstration.

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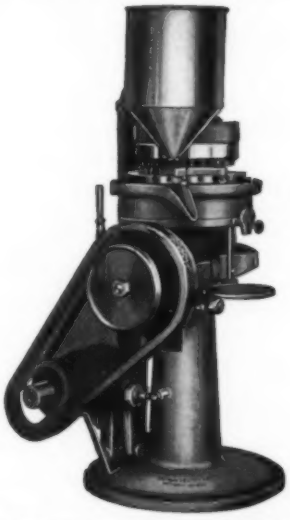

A NEW COLTON ROTARY TABLET PRESS
SERIES 200-25 ROTARY TABLET PRESS

The design of the Series 200-25 Tablet Machine is an outstanding engineering achievement, the culmination of years of experience in building tablet machines. This compact machine incorporates refinements that provide an entirely new standard of performance for this type of equipment.

ARTHUR COLTON COMPANY
2620 East Jefferson Established 1884 Detroit, 7, Mich.

Fills MOST TYPES OF CONTAINERS WITH MOST ANY KIND OF MATERIAL

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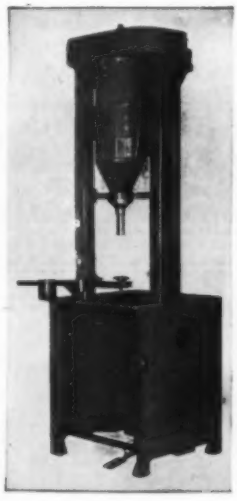
UNIVERSAL FILLER

4 MACHINES IN A SINGLE UNIT



1. A gross weight scale with auger feed.
2. A volumetric filler measuring material by the volume of the package.
3. A volumetric filler measuring material by the turns of the auger, a very precise way for the smaller quantities.
4. A packing machine to compress the material into packages.

Versatile—the most flexible filler you have ever seen! And, changing from one type of container to another, even from paste to free-flowing powder, is only a few minute's work.

Speeds to suit your needs—15-30-60-120 per minute

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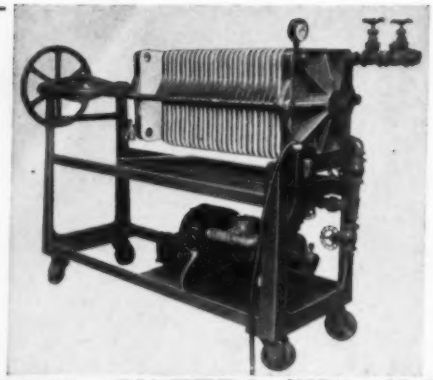
FILLING • PACKAGING • WRAPPING MACHINES

"Better machines for better packages"



HORM FILTERS HORM ASBESTOS FILTER PADS

Horm Filters for filtration, clarification, polishing, are designed so that no liquid can by-pass the filter element. They are unsurpassed for drug, chemical and cosmetic preparations.

CLARIFLOW

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–No rubber washers used
–Adaptable to all types of filter mediums
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–Construction Stainless Steel or Bronze (nickel plated)
–Suitable for coarse and fine filtration, including germproof and ultra-fine

HORM ASBESTOS FILTER PADS FOR EFFECTIVE FILTRATION

TRADE MARKS REG. U.S. PAT. OFF.

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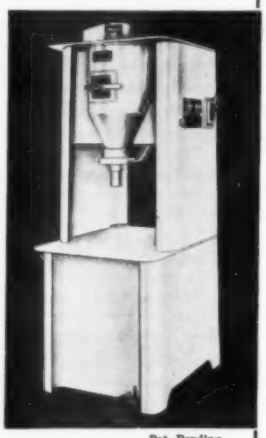
Plant: 30 Sea Cliff Ave., Glen Cove, L. I.

FOR QUICK CHANGEOVERS USE THE *RODGERS* FILLER

Immediate Delivery!



Pat. Pending

If you are filling containers with several different shades of powders or changing the sizes of your boxes, simple dial adjustments on our machine will effect the changeover in a few seconds. This is a patented feature of the Rodgers Filler.

All mechanisms are above the tube and auger, assuring no interference of powder with moving parts.

The Rodgers Filler, designed by Cragar, in one cosmetic operation is filling a 4-ounce package at the rate of 70 per minute with complete accuracy.

The Rodgers Filler can be furnished fully automatic with intake and discharge conveyor.

Send for complete details of our machine or let us arrange a practical demonstration using your product.

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Design, Construction and the Complete Equipping of Laboratories, Biological, Chemical, Cosmetic, Drug and Food Plants.

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..."HAGERTY HANDY FILLER"

- Durable
- Moderately priced
- Eliminates spilling
- Simple to operate
- Convenient sizes
- Light construction

The most practical hand filler for creams, lotions and liquids.

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HAGERTY BROS. & CO.
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Est. 1849

The World Known

"TWIN FILLER"

for Gravity-Vacuum-Pressure

is back again

Rapid and accurate filling brought within the reach of everyone. Contains all of the features of large and costly machines. Will fill bottles in a straight line as well as in your own packing trays. Foot operated. For larger production requirements—Automatic straight-line bottle filling machines.

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Brown Automatic Packeting opens up entirely new avenues of distribution and sales. Brown equipment economically packets any dry, free flowing drug product — uniformly and with minimum filling losses. Inquire about Brown packeting — a packaging story in itself.

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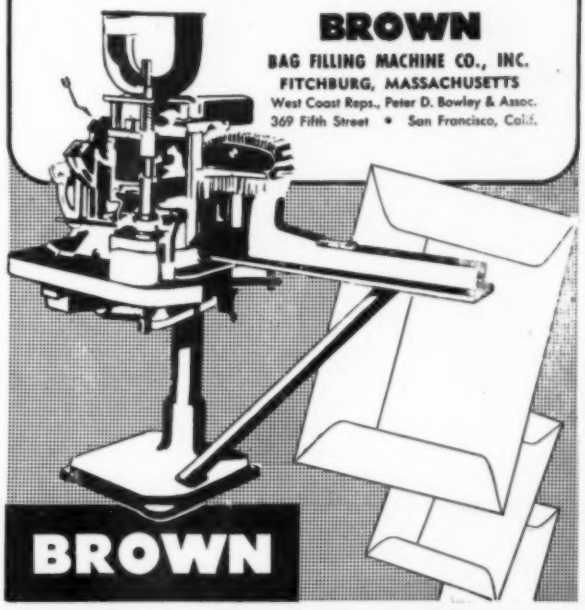
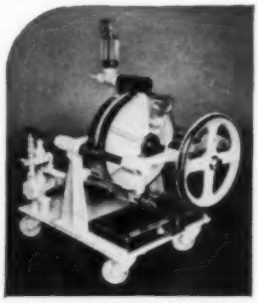
369 Fifth Street • San Francisco, Calif.



BROWN



A Small Capacity Filter ...BY ERTEL

Here's the ideal Ertel engineered filter for small capacities. Known as Model EBW, it is built with 3 gpm pump. Has single hand wheel for effortless tightening. Whether your requirements can be met with this unit or with a special unit from the complete line of Ertel Filters, Ertel engineers are always ready to help you solve your liquid handling problems. Catalog 15 was recently off the press.

May we send you a copy?

ERTEL — FLUID HANDLING EQUIPMENT

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CORPORATION
KINGSTON NEW YORK

New York City Sales Office: 40 West 48th Street, New York 19, N. Y.

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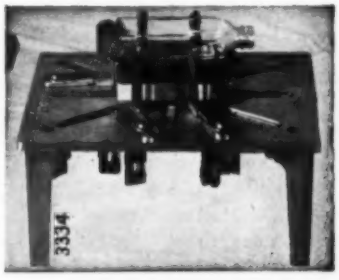

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YOUR TRADE-MARK RECORD

By JOHN H. GRAHAM
International Trade-Mark Consultant

FURTHER COMMENTS ON THE LANHAM TRADE-MARK ACT OF 1946

IN LAST month's issue, I gave you a brief glimpse into some of the provisions of this new Trade-Mark Act and am continuing herein. Because, however, of the many questions which have been directly put to me, I believe a questions-and-answers approach may be better. If you have one or two points on this Act not quite clear in your mind, you can run down this list and find a simple answer.

In passing, though, I would like to point out that it is quite an undertaking to break down legal language into plain talk. A complicated legal passage with all the "proviso's" in it can only be reduced so far; when put in extreme short form it then becomes only a recital of the basic thought. There, the notes given before and also herein can only be a general guide. Amplification may be needed to answer some specific question.

The Lanham Act is officially dated July 5, 1946 and goes into effect one year later, namely, this July 5 (not July 7 as reported in last month's column by error). The year between was provided as an adjustment period. To date, however, many provisions have not been clarified; wide differences of opinion still exist as to interpretation of many points. The actual full effect of the Act will only be felt after its going into force, and after legal interpretations of unclear issues have been rendered.

So here are some pertinent questions I have had to answer, numbered for convenience and cross-reference.

1. What Is This Lanham Act? A new trade-mark law which will completely replace all existing trade-mark legislation after July 5.

2. Why Was It Passed? Because existing laws were outmoded. It aims to modernize and simplify the laws; to conform them to national and international business practice of today.

3. Are My Present Trade-Marks Affected By It? If they are already registered at the Patent Office—No! But you can re-publish or re-register if you wish (see questions 4-6). If unregistered, you should consider registration if you use the mark since otherwise you may lose valuable rights as you will see hereinafter.

4. Why Should I Re-Publish Some of My Registered Trade-Marks? They will then be governed by the many new provisions of the Lanham Act given hereinafter which include *incontestability* after five years' continued use (see questions 6 and 7). Thus, those of your registered trade-marks which you are actively using and intend to continue in use should be considered to re-publishing.

5. Why Should I Consider Re-Registration In Some Cases? (a) You may have a present (1905 Act) registration in which you were forced to disclaim some part of the mark, but you may now be able to register the mark *without* the disclaimer—the Lanham Act gives greater leeway regarding secondary meaning acquired by use—so the old disclaimed matter perhaps can now be considered distinctive of your goods or services. (b) A present registered mark of the 1920 Act type may be also considered as distinctive under the new Act, thus now being registrable without the limitations previously imposed—the Patent Office has wide discretion in determining whether any mark unregistrable under the 1905 Act and thus placed onto the 1920 Register has acquired distinctiveness—five years' exclusive use being one determining factor.

6. What Is This "Incontestability" About? This is one of the greatest improvements provided in the new Act! After the first five years of life of a trade-mark registered under the Lanham Act (and during the sixth year) the registrant must file an affidavit of proof of continued use in that period. If not used or temporarily abandoned he may state the reasons in an affidavit and hope to convince the Patent Office that he has not the intention of abandoning the mark. War conditions, for example, could be a valid excuse. If an affidavit is not filed or if it is refused, the mark will be cancelled after the end of the sixth year! If, however, the affidavit is accepted, the trade-mark is now considered incontestable, namely, secured or water-tight forever, except for several defined challenges.

7. What Are Some of These Challenges To Incontestability? (a) The registration was obtained by fraud; (b) the mark has been *abandoned*; (c) the mark contains prohibited matter (like the flag, scandalous matter, etc.); (d) the registrant has not re-published an

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old registered trade-mark (see question 4).

8. How is "Abandoning" Caused? By discontinuing the use of a mark intentionally—shelving it—without intending to use it again. But the new Act says that two consecutive years of non-use can be considered as abandonment—so be careful to continue use of important marks! Note here, that the Register will be relieved of the presence of such abandoned marks. This may clear the way for another user since an abandoned mark can be used by another under some conditions.

9. How Must I "Use" My Mark? Actual use of the mark in association with the goods in either interstate commerce or foreign commerce—this normally gives you the right to register the mark (if otherwise acceptable)—*intra*-state use is not enough for such Federal registration. But, the new Act states you should indicate *your date of first use of the mark* as well as this date of use in commerce. So sales within the state only would therefore be adoption and first use as long as subsequently—before filing your Federal application—you used the mark genuinely in the stated foreign or interstate commerce.

10. What Is Meant By Continued Use? This is hard to define but remember the use of the mark should be more than merely incidental—a haphazard keeping-it-alive; it should be enough to be conclusive use of the trade-mark *in some form of association* with your goods or service—a genuine effort to employ and preserve your trade-mark in your business dealings. (See question 8 above).

11. In Some Form of Association? But Don't The Labels Have To Be Attached? Not necessarily! This outmoded rule of the 1905 Act of "affixing (the label, etc.) to the goods or package" is missing from the new Act. It was impossible to comply with it in many instances—gasoline is a good example—and new types of trade-marks can be registered under the Lanham Act where a physical attachment of, say, a label is impossible.

12. What Then Is The New Rule? The wording now used is "the trade-mark is used . . . *in connection* with such goods, the trade-mark being applied to . . . " Then, the manner of association is mentioned, such as, "the goods; the containers therefor; displays associated with the goods; tags or labels attached to the goods;" etc. This widens the field of application.

13. What Are The New Types of Marks Now Registrable? Service marks, collective marks, certification marks.

14. What Is A Service Mark? A mark used in commerce in the sale or advertising of services to be preformed by the owner identifying origin of services or "services rendered"—(example: "Greyhound" for buses)—perhaps making possible registration of such abstract things as radio program titles, and even those musical notes identifying radio networks.

15. What Is A Collective Mark? A mark used and identifying members of a cooperative, an association, a fraternity—identifying the membership of the individual. (Example: "T. G. A." for the Toilet Goods Association, to be used by members of the Association).

16. What Is A Certification Mark? A mark used upon the goods of one or more persons other than the owner of the mark to certify to quality, accuracy, method of manufacture, etc. with, of course, some approval or control by the trade-mark owner. (Example: the Good Housekeeping Seal of Approval for goods submitted to them and meeting their standards).

17. What Happens To My Present "Act of 1920" Registered Marks? Your 1920 registrations will all expire at the end of their present terms; you cannot renew them so re-registration is necessary if you can qualify as to distinctiveness (see question 5 (b).

18. What If I Need The 1920 Act Registration for Foreign Trade-Mark Coverage and Yet It Won't Qualify? If you can show use of the mark in foreign commerce then for such purpose you can get a registration, even without the one-year use of the old 1920 Act, but the registration is on a Supplemental register and apparently shares in none of the advantages given above for 1946 Act registrations.

19. What About My Present "Act of 1905" Registrations? They remain in force and in effect for their twenty-year term. You don't have to re-publish or re-register *unless* you want to obtain benefits of the 1946 Act (see questions 3-6). Since you don't have to file an affidavit of use under the Act of 1905, (see questions 6 and 7), in some cases it may be better to just let certain registrations run their normal life. Renewal, however, after the twenty years are up will be under the terms of the 1946 (Lanham) Act.

20. What About Any Trade-Mark Application I Have Pending Now? If you wish you can make arrangements to amend it to bring it under the provisions of the new Act. This is usually advantageous.

21. I Use The Same Mark on Widely Different Goods. Can I Now File One Application? Yes, if you wish! You pay then the fee for each class of goods, but only file one application and receive only one certificate. This may not always be the best policy, however, unless you are sure you will continue to use the mark on *all* the goods.

22. Is The Life Of The Registered Trade-Mark Changed By The New Act? No! It is still twenty years, renewable for like periods, indefinitely subject of course to continued use. (The official fee, though, has been raised by $10 to $25).

23. How Do I Tell The World That My Trade-Mark Is Registered? The approved marking is either "Registered U. S. Patent Office," the known abbreviation "Reg. U. S. Pat. Off." or the new "R" in a circle, similar to your copyright notice of "C" in a circle. You may use any of these.

24. Must I Mark My Labels, etc. With These? Not necessarily! But, if such marking is not done, then you have not given *actual* notice of your registration to the public—you may not then be able to collect damages from an infringer.

25. What Is This "Actual Notice" of Registration? Putting before the public obvious advice that the trade-mark is registered—in advertising; on labels; on cartons; on displays—the short form of R in a circle need not detract from the aesthetic appeal of your goods. When the mark is placed on the register only constructive notice exists.

26. What Is Constructive Notice, Then? Registration of the mark gives this under the new Act. The other fellow must see if a new mark he proposes to use is clear by searching the register. His ignorance is no defense. It's up to him to avoid—keep clear of—your registered mark. Thus, before use of a mark a good search must be made for safety. The penalties of infringing have been made severe and binding in the new Act.

(Continued on page 865)

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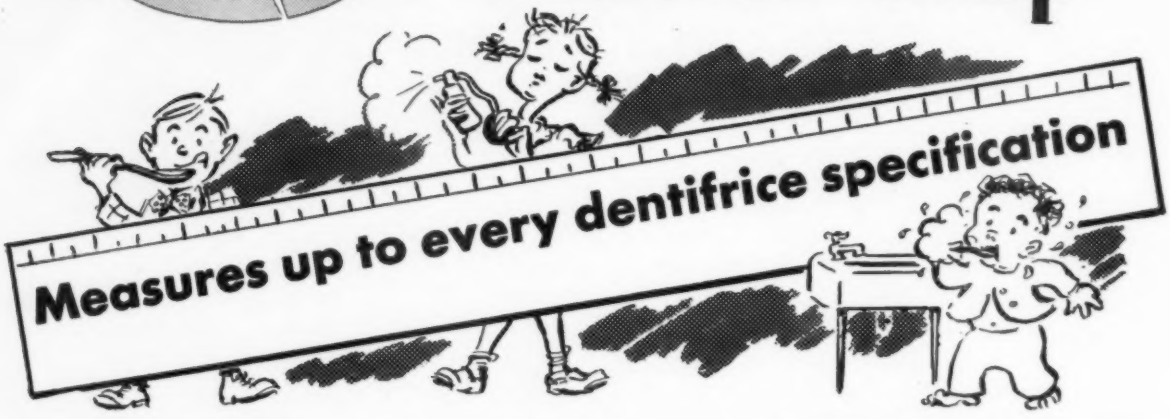

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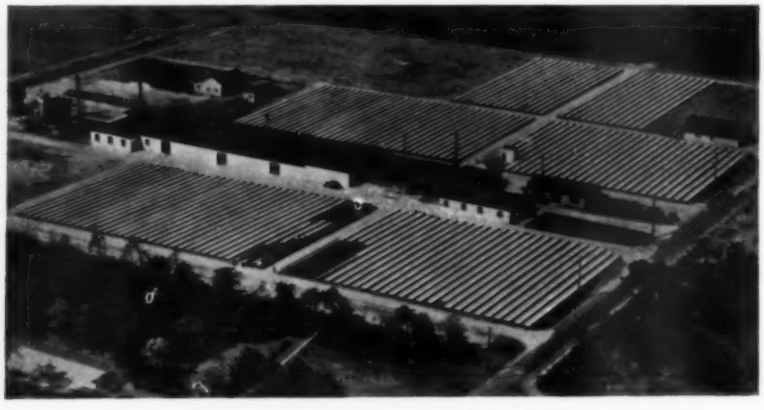

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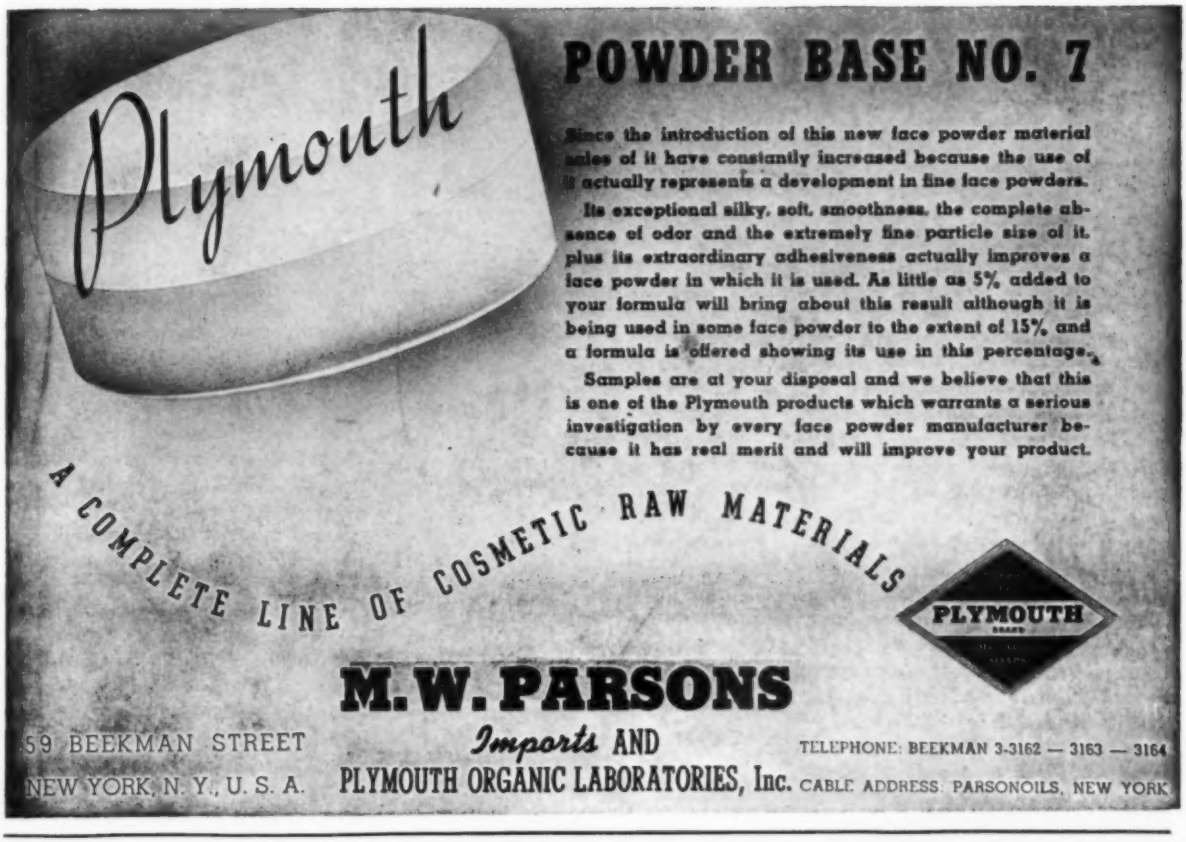
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Patent Thoughts and Trends

By THOMAS CIFELLI, Jr., Patent Attorney

Hair Treating Cream

Ramsey, a St. Louis inventor, obtained U. S. 2,418,664, dealing with a hair curling or straightening paste.

As is known, a number of compositions have been developed and used for modifying the physical characteristics of the hair. All of these agents, according to the patentee, are based on the physical characteristic of hair which by now has become quite well known, namely, that the curliness or straightness of the hair depends upon the cross-sectional shape of the hair fiber. Straight hair, that is to say, hair that does not have a natural curl or so-called wave, has been found to have one type of cross-sectional shape, and extremely curly or so-called kinky hair, commonly found in members of the African race, possesses a different type of cross-sectional shape. Between these limits, there is almost infinite graduation in cross-sectional shape, accounting for various types of curly or so-called wavy hair. All so-called permanent wave solutions and hair straighteners possess the property of softening the hair fibers to a sufficient extent to make it possible to modify the cross-sectional shape once the hair fiber has been chemically softened and the treatment is followed by some so-called setting process, whereby the walls of the hair fibers again resume rigidity in the new cross-sectional shape.

Ramsey points out that known hair treating agents, being liquids, are somewhat difficult to apply and great care must be taken to avoid excess application directly to the scalp. He asserts that his paste-like cream is convenient for the user herself to apply.

The new cream comprises a base including an acid stabilized emulsifying agent, such as glyceryl monostearate, polyglycol monostearate, or similar monostearate, either alone or modified with a sulphated oil, and a hair softening solution having the active hair-softening chemicals, the latter solution being properly compounded or mixed with the base in the formation of a smooth stable paste-like cream preferably having the consistency of cold cream, for example.

The formula of a hair-treating paste is given as follows:

	Per cent by weight
Emulsifier containing approximately 90% polyglycol monostearate and approximately 10% stearyl amide	21.34
Sodium hydroxide	.88
Thioglycolic acid (38% aq. soln.)	13.04
Ammonia (26% aq. soln.)	1.85
Ammonium sulphite	1.00
Sodium lauryl sulphate	.03
Water	61.86

Directions for Waving Hair

The hair should be shampooed and thoroughly cleansed, using any conventional type of shampoo soap. After the hair has been shampooed, it should be rinsed thoroughly in warm water and dried with a towel. While still slightly damp, the hair should be parted down the center of the head and divided into a plurality of separate strands about one and one-half inches wide at the scalp and approximately a sixteenth of an inch thick. Starting preferably with the strand which is nearest the part and just above the forehead, a quantity of cream or paste is squeezed out of the tube onto the strand adjacent to, but not directly upon, the scalp and is worked thoroughly into the strand of hair with a small brush or by gripping the strand between the fingers and sliding the fingers downwardly a number of times to work the paste thoroughly into the strand. Thereupon, the strand is wound up upon any conventional type of curler and secured against the head in the formation of a roll or curl. The degree or extent of wave can be controlled by the tightness with which the hair is rolled up on the curler. If a so-called tight wave or close curl is desired, the hair is rolled up very tightly on the curler. On the other hand, if a loose or gentle wave is desired, the strand of hair is rolled up rather loosely upon the curler.

"Each strand of hair is similarly treated with the cream or paste and rolled up upon its individual curler in successive order around the entire head. It will, of course, be evident that the number of strands and resultant rolls or curls will depend upon the quantity, length, and thickness of hair of each individual user. In ordinary cases, it has been found that approximately twenty-five to thirty such curls will be formed. The hair is allowed to remain rolled up upon curlers for approximately two hours. In the case of extremely fine soft hair, this time period may be reduced to approximately one and one-half hours, and, contrawise, in the case of extremely coarse wiry hair the time period should be lengthened to approximately two and one-half hours. In any case, the actual length of the time period with hair treating pastes of the present invention is at least an hour to an hour and a half shorter than the time period required for any of the liquid type of solutions heretofore available.

"After the proper time has elapsed, each roll or curl should be treated with a so-called 'neutralizer' solution, which consists of a dilute solution of an oxidizing agent, such as potassium bromate, sodium perborate, or hydrogen peroxide. Each curl is thoroughly saturated with the neutralizer solution and, after all the curls have been so saturated, the hair is allowed to remain in this condition for approximately ten minutes. Thereupon, the hair is unwound from the curlers and a further application of neutralizer solution may be employed, if desired. Finally, the hair is rinsed with cold water for approximately one minute and dried throughly with a towel, whereupon the 'permanent wave' will be completed and the hair will be ready for setting in any favorite or desired hair style."

Directions for Straightening Hair

The hair is thoroughly shampooed and dried with a towel and, while damp, is brushed downwardly from the center of the scalp toward the shoulders with an extremely coarse stiff brush. The hair treating paste or cream is squeezed out

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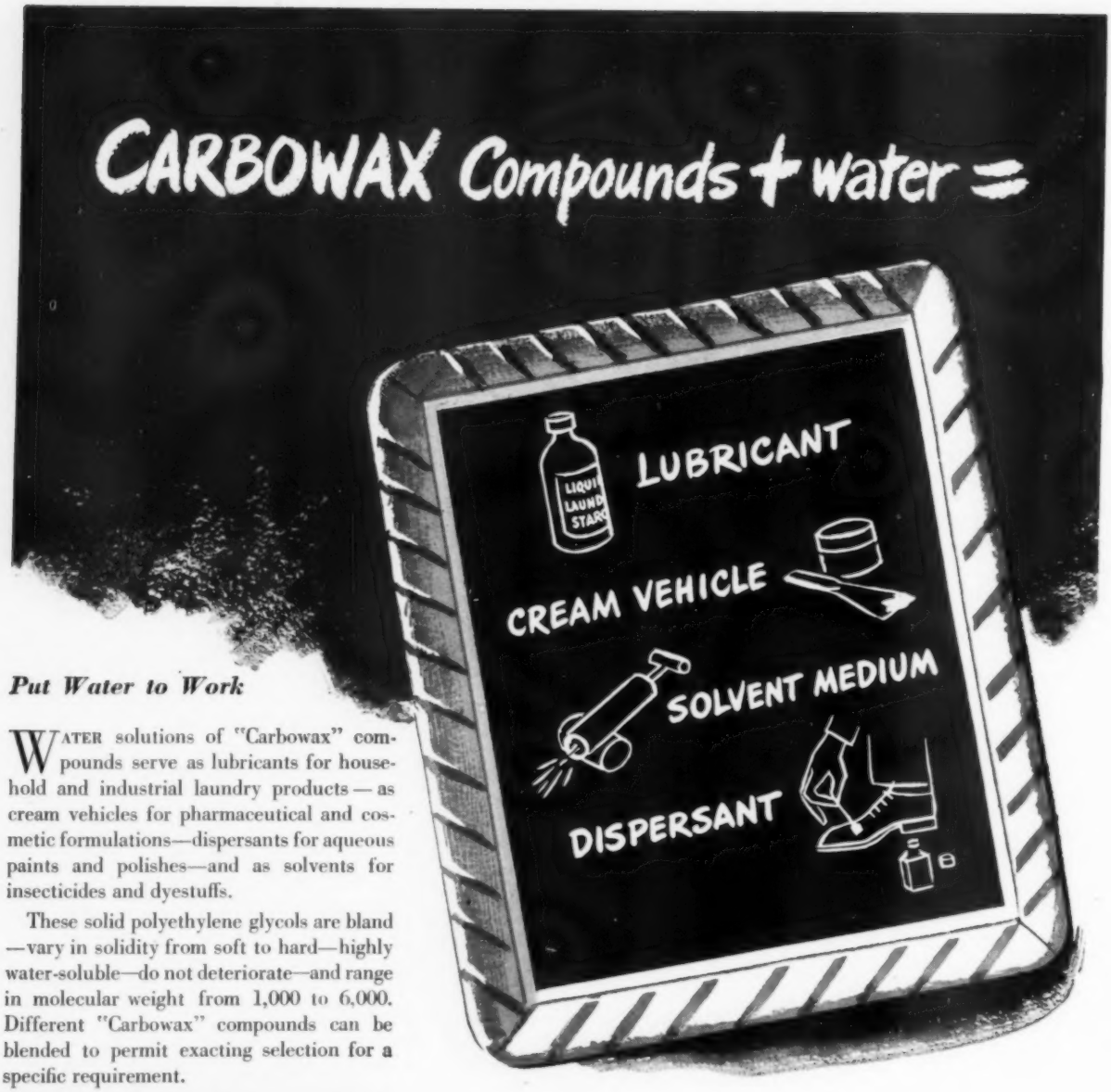

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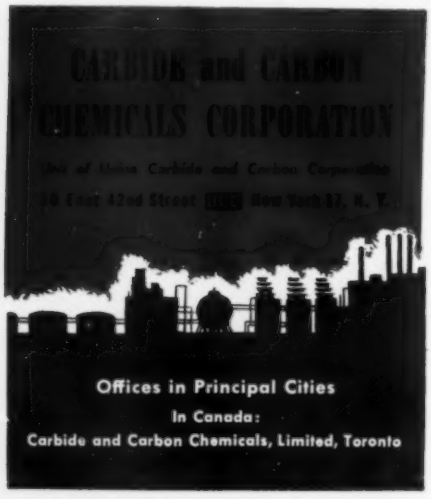

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of the tube directly onto the hair and brushed into it with a continued downward stroking movement, using the same very stiff coarse-bristled brush, and this procedure is continued around the entire head until the hair is, in effect, plastered down against the scalp in fully distended or straightened position. The paste-like cream has the unique property of holding the straightened hair permanently in this position without resort to straightening irons or other mechanical expedients. After the hair has been allowed to remain in this so-called "plastered down" condition for approximately two hours, a neutralizer solution is thoroughly sponged into the hair with a small sponge or cotton swab and is allowed to remain for approximately ten minutes. Thereafter, the hair may be rinsed for about one to two minutes in cold water, dried with a towel, and combed, set, or otherwise coiffed in any usual or conventional way."

Claims

There are only three claims, all reciting specific recipes for the hair-treating compositions.

References Cited

A helpful file on this subject can be compiled from the references of record in the file of this patent. They follow:

United States Patents

Number	Name	Date
2,352,524	Evans	June 27, 1944
2,389,755	Baker	Nov. 27, 1945
2,310,687	Friedman	Feb. 9, 1943
2,305,356	Luckenbach	Dec. 15, 1942
2,261,094	Speakman	May 21, 1940
2,155,178	Brown	Apr. 18, 1939
2,403,937	Lubs	July 16, 1946
2,390,073	Calva	Dec. 4, 1945

Foreign Patents

Number	Country	Date
117,071	Australian	June 3, 1943
472,745	Br.	Sept. 29, 1937
550,746	Br.	Jan. 21, 1943
423,741	Br.	Feb. 4, 1935
468,845	Br.	July 13, 1937

Other References

Manuf. Chemist and Manuf. Perfumer, June 1945, XVI 6 page 221, "Harmfulness."

Beeler, "Hydrophilic Ointments and Bases."

Bulletin of Natl. Formulary Committee Aug.-Sept., 1942, pages 173-232, pages 173, 174, 205, 211, and 218.

Germicides and Fungicides

Four patents of interest in this category were recently issued. They are U. S. 2,418,986, 2,419,021, 2,419,294, and 2,420,099.

A. Mercury Compositions

U. S. 2,418,986 was won by Rampel of New York City. He found that certain mercury-containing compounds in combination with diethylene glycol monoethylether are rendered more soluble in water, thus allowing for the production of much stronger solutions. Other asserted advantages are reduction of toxicity of the mercury compound employed, penetrating ability, unexpected stability in aqueous solutions, and strong attachment to textile fabrics enabling repeated washings with water and dry cleaning operations, and also, the novel compositions may be incorporated in unguents for toilet and medicinal purposes.

Phenyl mercury acetate and phenyl mercury hydroxide are preferred mercury compounds.

Example 1 of the patent is reproduced below:

Example 1

"Three grams phenyl-mercury acetate, 50 cc. diethylene-glycol-monoethyl-ether, 0.7 cc. lactic acid and 48.5 cc. water are added together and allowed to stand for several hours and 0.8 cc. ammonia is added thereto. The clear solution thus formed has a pH of about 6.5 to 6.8 and a phenol coefficient of about 16."

About 0.1% of an organic detergent is preferably added to assist in the penetration of the compositions when employed on textiles.

The patent has one claim reciting three parts by weight of phenyl mercury acetate, 50 parts by volume of diethylene glycol monoethyl ether, 0.7 part by volume of lactic acid, 0.8 part by volume of ammonia, and sufficient water to produce the desired dilution.

U. S. patents 2,067,674 (Kimerlin) and 2,044,959 (Tisdale) were made of record in the file.

B. Halogenated Hydrocarbons

Harnden, a Shell inventor, obtained U. S. 2,419,021, dealing with compositions suitable for controlling bacteria and obnoxious algae in water-cooling and disposal systems.

The bactericides are saturated hydrocarbons of at least three carbon atoms, preferably those containing three to 6 and having at least three Cl atom substituents, of which at least 2 Cl atoms are on secondary carbon atoms. Suitable compounds include 1, 2, 2-trichloropropane, 1, 2, 2, 3-tetrachloropropane, 1, 2, 3-trichlorobutane, 1, 2, 3, 4-tetrachlorobutane, 1, 3, 3-trichlorobutane, 1, 1, 2, 3, 4, 4-hexachlorobutane, 1, 2, 3-trichloropentane, 1, 2, 3, 4, 5-trichloropentane, 3, 4, 5-trichlorohexane, etc. The trichlorobutanes of this type are preferred.

The agents are generally added to the water at the rate of two or three to 20 parts per million, sometimes as high as 50 P.P.M. or more.

C. Benzothiazole Sulfenamides

The use of these compounds, already disclosed as accelerators for the vulcanization of rubber, as effective fungicides is taught by SKAPTASON in U. S. 2,419,294 (assigned to U. S. Rubber).

D. Phenolic Germicides

A seemingly important contribution to the field of phenolic germicides is covered in a patent issued to Anthony Salle and Howard Guest, two Californians. In U. S. 2,420,099 they teach that germicides such as cresol, phenol, hexylresorcinol, resorcinol, and thymol can be made more effective by adding to each gram molecular weight of the germicide one equivalent weight of an oxidizing agent such as ferric chloride, ferric sulphate, manganic chloride or manganic sulphate, or any other oxidizing agent that will result in a soluble end product.

Other Patents

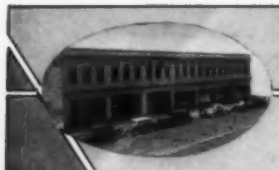
U.S. 2,417,326—**(Hoffman-La Roche)—Intermediates for biotin-like substances. Imidazol thiophan derivatives.**

U. S. 2,417,541—**(American Cyanamid)—Vitamin B_6 intermediates. 2-methyl-4, 5-dicarboxy pyridine-6.**

U. S. 2,417,777—**(Squibb)—Non-infections, complement-fixing-lymphogranuloma-venereum antigen.**

U. S. 2,417,841—**(Simon Ruskin)—Vitamin B complex composition.**

U. S. 2,417,882—**(L. J. Neary)—Depilating composition containing as essential ingredients glucose and a material such as talc, zinc oxide, whiting, or silica flour, in the proportions of approximately 2 of glucose to 1 of the other material.**



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Improving Filtration

Filtration of lotions made up with water, spirit, oils or other solvents, is automatic in most laboratories; the result being to give the final preparations an improved bright appearance. However, as is pointed out in The Perfumery and Essential Oil Record *(38:65, 1947) even greater improvements can be made by the use of a little activated charcoal, an inert earth, or in some cases with water, sodium bicarbonate. In lotions where it has been impracticable to use distilled water, the following treatment has been found useful: to the water is added 1 part in 5,000 of sodium bicarbonate and when completely dissolved 1 per cent neutral fuller's earth is added. The water is then filtered through a coarse filter paper, the filtrate being perfectly clear, completely softened in most cases and almost neutral, its p H being usually only 7.5.*

Pre-treatment of spirit with fuller's earth on activated charcoal is often helpful; to the spirit is added 1 to 2 percent of the earth or carbon and the mixture allowed to stand as long as possible and preferably for not less than twenty-four hours. Filtration through coarse paper then gives a much clearer and in many cases odor-improved spirit.

These treatments can be used for mineral oils, but here the difficulty is one of filtration; this is usually so slow as to make the process tedious, but if time allows or a pressure filter is available it is quite worth while.

Mascara Production

In discussing the production of mascara, G. Kempson-Jones (*Manuf. Chem. & Manuf. Perf.* 18:73, 1947) notes that a good mascara should look well in the cake form, it should be readily dispersible on a brush, it should not smart on accidentally coming into contact with the eye, and, finally, it should dry, leaving a thin, glossy, water-repellent film without any sticking of the lashes.

Ethanolamine esters, particularly triethanolamine stearate, because of its desirable physical properties, are now used as a basis for the best preparations. They have a low alkalinity and therefore do not cause any smarting of the eyelids. Waxes such as beeswax, carnauba, paraffin and ceresine are the usual choice, with beeswax predominating in the formula. The amount of carnauba wax should be just enough to impart the necessary hardness to the cake and gloss to the applied film. The addition of small quantities of mineral oil or castor oil is an advantage, as they permit adjustment of the physical properties of the film to prevent any tendency to flake off. Therefore, a certain amount of elascity in the finally dried-out preparation is necessary.

The water-repellent properties are obtained by making the total quantities of waxes and oils exceed that of the ethanolamine ester in, perhaps, the ratio of 2 to 1, with the ethanolamine ester, representing about 30% of the whole. At this ratio the preparation will mix readily with water when a brush is used during application; yet it will present an apparently water-resistant surface to tears or rain.

The colors used should be of the earthy pigment type, apart from black which is always carbon black of low density. Browns can be obtained from iron oxide pigments and blues from ultramarine. Organic colors are best avoided, due to the extreme sensitivity of the eyelids to any irritation and liability to allergic response. Although black is most popular, other colors should not be disregarded. Simply by varying the quantity of carbon black added to the mass a wide range of brown and blue shades is obtainable. A colorless shade is also a useful addition, since many mascara uses desire only that a gloss be imparted to the eyelashes without any actual darkening or coloring. In this case a trace of color, usually black, is added to the mass to mask the creamy yellow color which otherwise results. The effect on the eyelashes is, of course, still colorless.

The products can be made either in the unemulsified or emulsified form. In the first type, the formula will contain only oils, waxes, ethanolamine ester and color. In the second, however, a small quantity of water is incorporated during manufacture to form an emulsion. This ensures a readier mixing of the surface of the cake with the water on the brush. Manufacture of the unemulsified products is fairly simple. The waxes are melted in a steam-heated mixing vessel, those waxes with high melting points, of course, being added first. The oils are then added and, if the ethanolamine ester is being prepared *in situ*, the fatty acid should also be added at this stage. The pigments are next incorporated, and the whole should then be passed through a heated ointment mill to ensure equal dispersion of the colors. To the smooth wax-oil-pigment mixture, maintained at about 80°C., is added either the ethanolamine ester or the ethanolamine, whichever is selected. It should be noted that solid esters of this type disperse readily in the melted wax mixture, but dissolve slowly; incomplete solution may easily pass unnoticed, due to the deep color of the mass.

To prepare the emulsified type of mascara the required quantity of water, preferably containing a small percentage of a humectant, is heated to 80° C. and added slowly to the heated mass.

By adding a small quantity of the soluble color similar to the shade being produced at the water phase of manufacture of the emulsified type of mascara a psychological advantage can be obtained. When the user applies a wet brush to the mascara cake formulated in this manner, the foam produced will be colored instead of standing out white against the dark surface of the cake.

Molding Lipsticks

In discussing certain aspects of lipstick manufacture, R. D. Chandler (Retail Chem. *18:30, Jan. 1947) stresses various factors that warrant consideration during molding operations. For example, there is always a tendency in the melted lipstick mass for the suspended particles of color to sink to the bottom of the liquid. Therefore it is imperative that the liquid lipstick base be well stirred and retained in motion throughout the operation. It is advisable not to heat the base so that it becomes too liquid, because this makes suspension more difficult. If these precautions are not taken, the particles in sus-*

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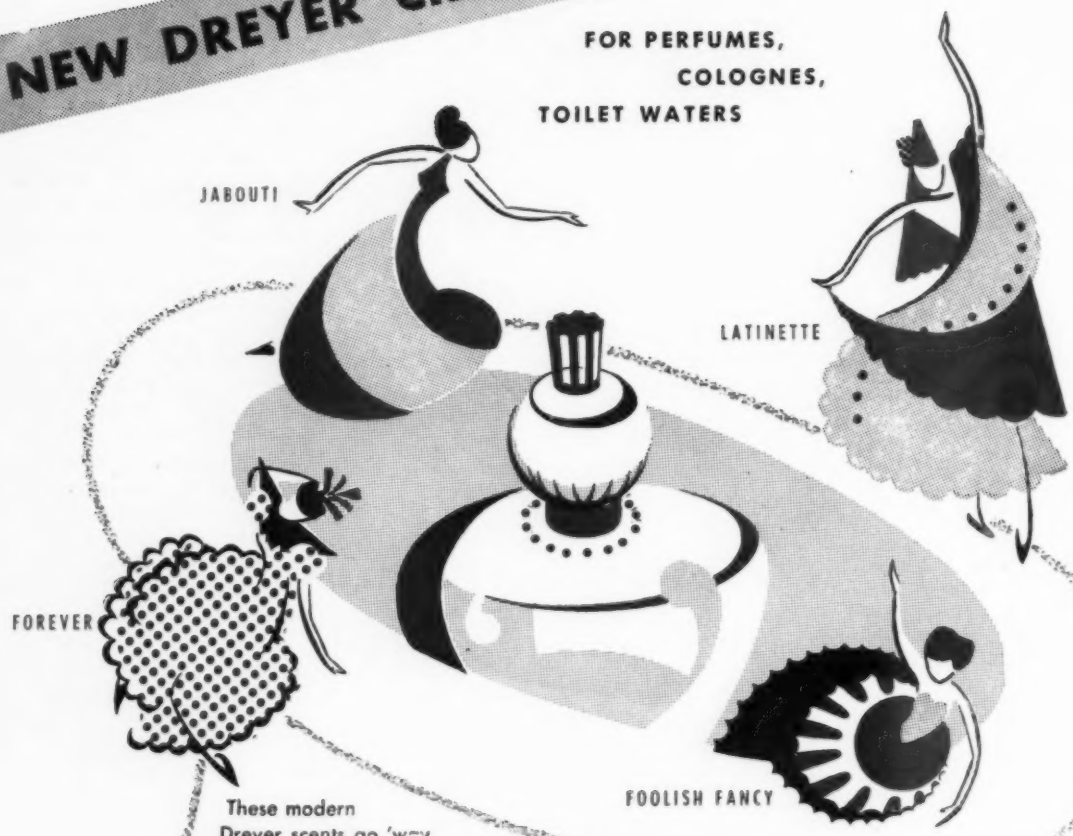

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pension are likely to fall to the bottom of the mold. This will result in lipsticks of variable color, with the top containing the bulk of the insoluble dye.

The temperature of the mold is also an important factor. If the mold is very cold, the poured lipstick mass may show a tendency to solidify in layers. It is desirable to have the mold warm, but not too hot, before pouring is started; a temperature just slightly below that of the liquid mass is suitable. After the lipstick mass is suitable. After the lipstick mass is molded, rapid cooling is an advantage. Therefore if the mold is placed on ice, a much finer product will result. This also tends to loosen the lipsticks in the molds, thus facilitating their rapid and easy removal.

Pilometer for Studying the Hair

Successful treatment to counteract the loss of hair should be based on controlled experimentation. This calls for a test which permits careful measurement of the firmness with which a single hair is attached to the skin and the determination of certain rheological properties of the hair, such as its yield value, elasticity, and tensile strength. An instrument, called a "pilometer," has been devised to make such determinations and is described in detail by A. L. Copley in *Science* (105:340, 1947). With this pilometer he has made a series of studies on a group of 42 healthy, white, male and female adults. He found that the firmness of attachment of hair ranged between 22 and 60 Gm., averaging 34 Gm.; the tensile strength, between 65 and 120 Gm., averaging 95 Gm. Of interest were the findings in a group of 4 Chinese; the firmness of attachment being 64 to 68 Gm., and the tensile strength 141 to 165 Gm. These values definitely exceed those obtained in the group of white subjects.

In Copley's opinion, the pilometer promises to be a valuable tool by which the dermatologist may be able to test certain locally or systemically applied treatments for hair in both health and disease.

Pyrethrum Mosquito Repellent Cream

In a series of carefully controlled studies, C. G. Johnson (J. Trop. Med. *50:52, 1947*) *has shown that when used in the proper base, pyrthrum is highly effective as a mosquito repellent. A citronella cream, containing 28 per cent of oil of citronella in a base of hard and soft paraffin proved useless as a repellent. Similar results were noted with 1 per cent of pyrethrin in the same base. However, there was much better protection, lasting up to seven hours, when a tragacanth base containing the same percentage of pyrethrin was used. The following formula was used to make a paste, which, on shaking with sufficient water to give 200 Gm., produced the repellent cream:*

Pyrethrum extract (40% pyrethrins, colorless concentrate)	**5 cc.**
Alcohol (methylated spirit)	**10 cc.**
Tragacanth	**6 Gm.**
Glycerine	**6 Gm.**

The cream is quite pleasant to use, but it is important that all parts of the skin are covered to obtain full protection. A cream made with 0.5 per cent pyrethrin gave protection that was only slightly lower than the 1.0 per cent cream.

Witch-Hazel Cleansing Cream

In a commentary on the status and popularity of witch-hazel preparations in England, published in the *Perfumery and Essential Record* (38:11, 1947), appears the following formula for one of the "simplest and most satisfactory" cleansing creams:

Lanette wax	**12 parts**
White petroleum jelly	**18 "**
Glycerine	**6 "**
Distilled witch-hazel	**64 "**

Comparative Toxicity of Hair Treating Agents

A report, delivered by A. F. Ginteras and C. T. Snell at the April meeting of the American Chemical Society, covers some preliminary toxicological studies made on certain s u l f u r-containing compounds which have found increasing use in depilatories and cold permanent hair waving solutions. These investigations, made in 1939 to 1941, were discontinued at the start of the war. The studies were made on (a) a 5 per cent aqueous solution of ammonium thioglycolate containing excess ammonia to give pH 9.2, (b) a 5 per cent aqueous solution of thioglycerine containing sufficient ammonium to give pH 9.2, and (c) a then commercial cold-waving solution containing 8 per cent ammonium hydrogen sulfide. Although the sulfide is no longer used in hair-waving solutions, it is still employed in depilatories so that the results are of current interest in connection with certain types of products applied to the skin.

Rabbits were used exclusively as the experimental animals in these tests. Although it was originally intended to do more elaborate investigations, the data obtained in these preliminary investigations seem sufficiently conclusive to justify the statement that solutions of ammonium thioglycolate and thioglycerine at pH 9.2 offer a far greater degree of safety as cosmetics than solutions of ammonium hydrogen sulfide.

Studies on Cold Wave Process

At the May 13 meeting of the Society of Cosmetic Chemists, R. E. Reed, M. Den Beste and F. L. Humoller reported some interesting observations on the cold process of permanent waving. It was pointed out that current widespread interest in the toxicological properties of chemical preparations used to develop permanent waves has exposed the dearth of scientific information on permanent waving processes in general. In the so-called cold permanent waving process the hair is treated with an alkaline reducing agent which effectively splits the disulfide linkages in the keratin structure. Because the hair fibers are under strain, i. e., wrapped around a rod of small diameter, the splitting of the disulfide linkages allows a reorientation of the polypeptide chains. When this reorientation has allowed the development of a suitable wave undulation, the reduced hair is treated with an oxidizing agent in order to make the waved state permanent.

Natural variations in human hair fibers, both physical and chemical, were discussed and their effect on the permanent wave process was considered. Coarse hair fibers, because of their heavy cuticle and smaller surface area per unit mass, are waved with much greater difficulty than fine fibers. This is true despite the fact that coarse fibers show a greater differential extension when wrapped around a rod of small diameter than fine fibers.

Especially interesting are the toxicological investigations reported by these workers. Patch test studies have been carried out on a group of human volunteers. Some of these individuals during the course of their work have been exposed to thioglycolates daily for a long time, whereas others have never been in contact with this compound before. The results show that a properly formulated cold wave lotion neither sensitizes nor does it produce primary irritation under the conditions of this test. Using rabbits as test animals, it was found that daily percutaneous applications of 100 ml. of commercial cold wave lotions per 50 kg. body weight produced no apparent symptoms of systemic intoxication.

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Bacitracin—Potent Antibiotic

In May 1943, while searching for evidence of bacterial antagonism in the bacterial mixtures to be found in badly contaminated accidental wounds, F. L. Meleney and B. Johnson (*J.A.M.A.* 133:675, 1947) discovered an aerobic gram-positive spore-forming bacillus which produced, in ordinary culture mediums, a powerful antibiotic agent with a wide spectrum of antibacterial activity. When it was found that the active principle was present in the filtrate of the bacterial culture and was nontoxic for laboratory animals, studies were begun on its concentration and purification for the purpose of applying it to the treatment of human infections.

The organism was found in the debrided tissue removed from a compound fracture of the tibia in a 7 year old girl by the name of Margaret Tracey. In her honor the new antibiotic has been named "bacitracin." The crude filtrate was found to inhibit the growth of hemolytic streptococci in the test tube and on blood agar plates. It was also able, when injected subcutaneously, to protect mice against 10,000 or more minimal lethal doses of hemolytic streptococci given intraperitoneally, clearly indicating its ability to diffuse through the animal body from the site of injection to an area of infection. The crude filtrate also was found to have an abortive action on certain local human infections, such as furuncles and carbuncles, when injected into the center of the lesion.

After considerable work, the active principle was obtained in a more concentrated form and has been tested clinically. In 100 cases of surgical infections treated locally with the new antibiotic bacitracin a favorable response has been evident in 88 per cent of the patients. These cases represent the general run of localized or localizing infections which are seen every day in any surgeon's office or any hospital clinic. The results have been classified as "excellent," "good," "questionable" and "no effect." The excellent results are those in which the infections treated with bacitracin responded promptly within seventy-two hours, often surprising both patient and physician by the rapidity and completeness of their resolution. Cases in which the response was unsatisfactory have generally revealed some explanation for the failure.

Bacteriologic studies showed that the majority of surgical infections were due to a mixture of organisms. Most of the aerobic and anaerobic cocci found in these infections were susceptible to both penicillin and bacitracin. Thirty were resistant to penicillin and susceptible to bacitracin. Six were resistant to bacitracin and susceptible to penicillin. A few were resistant to both. None of the gram-negative aerobic bacilli that were tested were susceptible either to penicillin or bacitracin.

Bacitracin, like penicillin, will often obviate the necessity for a surgical procedure in certain types of surgical infections. Furthermore, it is not locally toxic or irritating and is not inhibited by plasma, blood, pus or broken down tissue or by the organisms which produce penicillinase. It may therefore be of value in infections due to bacterial mixtures.

Meleney and Johnson point out, however, that bacitracin will be of clinical importance only if it can succeed where penicillin or the sulfonamide compounds cannot. Its activity against many organisms of the staphylococcic and nonhemolytic streptococcic groups, which are resistant to these agents, seems to be significant.

Vitamin C in Traumatic Shock

The value of vitamin C in traumatic shock is again indicated by H. N. Holmes (*Ohio State Med. J.* 421:261, 1946). He found that when 500 mg. of vitamin C was given by mouth to patients of average weight within the hour before operation there was clinical evidence of a considerable decrease in traumatic shock. In tooth extraction oral administration of 500 mg. of vitamin C within the hour before operation is remarkably successful in preventing shock or postoperative weakness. Immediate administration of 500 mg. or more of vitamin C to 35 patients who had sustained varied accidents at coal mines seemed to increase shock resistance and to improve their condition. Intravenous injections of 500 or 1,000 mg. of vitamin C in sterile, buffered solutions was used preoperatively and postoperatively in a series of 50 major abdominal operations with excellent results.

Penicillin for Scarlet Fever

The value of penicillin in the treatment of scarlet fever is indicated in two reports published in the *Journal of the American Medical Association* for March 8, 1947. In the first of these reports (p. 657), H. L. Hirsh and his associates state that in 86 patients penicillin therapy resulted in a prompt fall in temperature, a decrease in toxicity and a decided reduction in the incidence of pyogenic complications and of the carrier state. Penicillin was more effective than antitoxin or symptomatic therapy in the prevention of complications and in reducing the number of carriers and was equally as effective in decreasing toxicity. Antitoxin caused a more rapid decline in temperature than did penicillin. On the other hand, the temperature dropped more rapidly in patients given penicillin than in symptomatically-treated patients. In an addendum to this report, they note that an additional 50 patients have been treated with 100,000 units of penicillin administered every four hours orally. The fall in temperatures and the decrease in toxicity were prompt. In none of the patients did there develop a pyogenic complication, and the beta hemolytic streptococcus disappeared during therapy in each instance.

In the second report (p. 661), A. L. Hoyne and R. H. Brown report that 116 patients with scarlet fever were successfully treated with penicillin. On the basis of their observations, they feel that penicillin is equally as good a therapeutic agent as convalescent scarlet fever serum. In addition, penicillin is superior to sulfonamide drugs as a therapeutic measure for scarlet fever.

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Chemotherapy in Appendicitis

The value of the prophylactic use of the sulfonamide compounds and penicillin in traumatic surgery was conclusively demonstrated during World War II. Following this lead, W. D. Griffin, J. Silverstein, H. G. Hardt, Jr. and L. Seed (*J. A. M. A.* 133:907, 1947) tried similar measures. In their work penicillin and sulfadiazine were routinely administered to 108 patients operated on for acute appendicitis. No alteration of any kind was made in the care of appendicitis except the introduction of prophylactic chemotherapy. They found that in addition to a definite reduction in mortality, there was a concomitant reduction in morbidity. The patients were more comfortable, had less abdominal pain and less abdominal distention and left the hospital at an earlier date.

Study on Nucleic Acid in Nutrition

Following experimental studies, T. S. Gardner (*J. Gerontology* 1:445, 1946) reported that the daily ingestion of 2.5 mg. of yeast nucleic acid increases the average life span of aged albino mice. For males the increase is 8.4 per cent, and for females, 7.4 per cent. Added to an adequate diet, the yeast acid either may be metabolized in place of the cell nucleic acids, conserving body reserves, or may increase leukocytic levels and consequently increase resistance to infection.

Powdered Blood Cells in Ulcer Therapy

In order to evaluate the effectiveness of powdered human blood cells in the topical treatment of chronic ulcers of the extremities, M. W. Anderson, N. W. Baker and T. H. Seldon (*Am. Heart J.* 32:754, 1946) have reviewed the cases thus treated at the Mayo Clinic. In approximately one half in which both ischemic ulcers and stasis ulcers were treated with the powdered blood cells, healing was much accelerated. In the other half in which powdered blood cells were used, it is questionable whether healing occurred any more rapidly than it would have with other bland local applications. In a few cases less healing occurred or the treatment was not well tolerated. It is difficult to determine whether the favorable response occurs from partial desiccation, from some healing factor in the cells, from nutrition supplied by the crust or merely because the crust is protective and entirely nonirritating. Nevertheless it is encouraging to observe progress in the ulcers, with first a puckering of the surrounding skin, than a freshening and reddening of the gray, avascular base, and finally granulations with epithelium creeping in from the margins. Certain disadvantages of wet dressings, such as maceration of the skin and chilling, are avoided with this "dry" method of treatment.

Hydantal for Epileptic Convulsions

The potentialities of a new anticonvulsant drug, hydantal, in the treatment of epilepsy are indicated by K. O. Von Hagen in the *Bulletin of the Los Angeles Neurological Society* (11:168, 1946). According to this worker, a tablet of hydantal contains 0.1 Gm. of 3-methyl 5.5 phenylethylhydantoin in combination with 0.02 Gm. of phenobarbital. He had the opportunity to try this drug in cases in which previous routine methods of treatment did not give symptomatic improvement or in which there developed a sensitivity to the preparation used. Hydantal alone or in combination with one of the barbiturates was given to 20 patients. Of these 9 received beneficial results, 7 reported no relief and 4 failed to return. One patient reported a dull feeling in her head with three tablets daily. Although the number of cases is small and the results are difficult to evaluate exactly, they do seem to indicate that hydantal is an effective anticonvulsant drug which is remarkably free from undesirable side effects.

Allyl Bromide as Gastrogogue

There are certain conditions, such duodenal ulcers, in which the emptying time of the stomach is an important consideration. Hence the interest in a new allyl bromide mixture developed and studied by H. M. Feinblatt and E. A. Ferguson Jr. (*Am. J. Digest. Dis.* 13:386, 1946). Called a gastrogogue, this preparation contains all the natural products obtained by the bromination of garlic. In contrast to a number of laxatives investigated by these workers, the allyl bromide preparation proved effective in stimulating gastric motility and hastening the emptying of the stomach. Such gastric stimulation was established not only in experiments on rats but also by a series of X-ray studies on human subjects. Administered to patients with duodenal ulcers, the mixture provided considerable relief by speeding the emptying time of the stomach.

Improved Form of Aspirin

J. C. Krantz, Jr. and his associates (*Anesthesia & Analgesia* 25:221, 1946) report that the analgesic activity of aspirin is intensified and prolonged by bromination of the phenyl group in the molecule. Acetyl-5-bromosalicylic acid quickly relieves, without toxic symptoms, headache and muscular pain in 80% of cases. Menstrual headache, however, is not affected. The new compound was administered in 0.3-gram capsules to about 300 people. These investigators note that the new compound, called bromoaspirin, hydrolyzes at twice the speed of aspirin *in vitro*. Important is the observation that blood bromide levels are not increased by the optimal dose of 0.6 Gm.

Vitamin C and Wound Healing

Much has been said, pro and concerning the importance of vitamin C in wound healing. A recent contribution in this connection is the report of J. A. Wolfer and his associates (*Surg., Gymec. & Obstet.* 84:1, 1947) on the effect on wound healing of a prolonged vitamin C deficiency on nine otherwise normal healthy young men. These investigators found that depletion delays the development of tensile strength in an uncomplicated healing wound from three to five days up to the fourteenth postoperative day. When circumstances for healing are poor, such as in the presence of undue wound tension or diminution in blood supply, this depletion in ascorbic acid is made more evident through gross failure of primary wound healing. The incidence of wound infection under such circumstances suggests the need for ascorbic acid in the tissues for maximum resistance to infection. Human subjects on prolonged ascorbic acid depletion exhibit lack of collagen and reticulum in their healing wounds.

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Essential Oil of Evodia Elleryana

As part of their investigations on essential oils from the Queensland (Australia) flora, T. G. H. Jones and S. E. Wright (*Univ. Queensland Papers, Dept. Chem.*, through *Chem. Abstr.* 41:1391, 1947) found that the leaves of the tree *Evodia elleryana*, upon steam distillation, yield approximately 0.2 per cent volatile oils; the chemical composition of which varies with the locality. Thus, 150 cc. of oil from Stradbroke Island yields 20 Gm. of evodione ($C_{16}H_{20}O_5$), 7 Gm. of elleryone ($C_{15}H_{22}O$) and 0.6 Gm. of a third compound with the formula: $C_{16}H_{20}O_5$. Three cc. of mixed phenols and a mixture of sesquiterpenes were also obtained. Evodione contains three methoxy groups and one carbonyl group, gives a red color with concentrated sulfuric acid, is optically inactive, and forms a crystalline orange red 2, 4-dinitrophenylhydrazone ($C_{22}H_{24}N_4O_3$, melting at 153°C.); an oxime ($C_{16}H_{21}NO_5$, melting at 119° C.); a semi-carbazone ($C_{17}H_{23}N_3O_5$, melting at 184-5° C.); and a pale yellow benzylidene derivative ($C_{23}H_{24}O_5$, melting at 133° C.). Elleryone gives a purple color with bromine plus glacial acetic acid, and forms a semicarbazone ($C_{16}H_{25}N_3$, melting at 177-9° C.). The third compound, which melts at 81° C., contains three methoxy groups and gives a red color with concentrated sulfuric acid, but forms no derivatives.

In contrast, 130 cc. of oil from the Mackay area yields 8 Gm. of elleryone and 0.6 Gm. of a compound with the formula: $C_{16}H_{20}O_4$. Melting at 107° C., this compound forms no derivatives, but contains two methoxy groups and gives a red color with concentrated sulfuric acid. Small amounts of sesquiterpenes and phenols were also present in this sample.

Essential Oil of Sphacele Lindleyi

The essential oil of *Sphacele lindleyi* has been studied by F. Oberhauser and E. Behn (*Anales facultad flosof. y. education, Univ. Chile, Seccion quin.* 3:73, 1946, through *Chem. Abstr.* 41:2210, 1947). The oil, obtained by steam distillation of the leaves and stems of the plant, has the following properties:

Specific gravity at 16°C.	**0.090**
Specific rotation	**–1.7**
Boiling point	**80-130°C**
Saponification number	**31.23**
Iodine number	**4.8**

The oil decomposes at 130 to 150° C. It reduces ammoniacal silver nitrate, is not easily oxidized by air or hydrogen peroxide but absorbs bromine. It gives a positive Zeisel test for phenolic ethers and a resorcinol test for cineal, $C_{18}H_{10}O$. Distillation yields two fractions, boiling at 75 to 90° C and 130 to 150° C., respectively. The oil seems generally similar to that of *Salvia officinalis*.

Lemongrass Oil in Argentina

The possibilities of cultivating lemongrass in Argentina has been studied by R. Nico (*Rev. Fac. Ciencias Quim.* 19:15, 1946). He points out that, in South America, the grass is successfully cultivated in Brazil and Paraguay, and also in certain districts of the Argentine, such as Misiones and Corrientes. It should do well, too, in the warm humid parts of the northeast of Buenos Aires province, where it should be possible to take one to three cuttings per annum for three to six years, with a yield of 8 tons of dried grass per cutting her hectare.

The material studied by the author was cut at 5-10 cm. from the ground, dried in the shade for 5-6 days, cut up into small pieces, and distilled in a Meek and Salvin continuous-type plant. The essential oil was separated, dried with calcium chloride, and the citral content at once determined, as well as the residual moisture. Results are tabulated of tests made with lemongrass oil obtained from the Facultad de Agronomia of La Plata University and from Instituto Fitotecnico de Santa Catalina, in Llavallol, F.C.S. The average of several samples showed in the former case a citral content of 71.9 per cent, and in the second case of 72.7 per cent. Yields of essential oil per 100 Gm. were 0.391 and 0.416 cc. respectively, and the moisture contents in cc. per 100 Gm. were 20.6 and 21.86. The citral contents therefore were just above the minimum requirement of 70 per cent.

Nico concludes that lemongrass could be cultivated profitably in certain parts of the Argentine at a rate of about 15 tons per hectare; yielding some 60 liters of oil per hectare per annum. A suitable still for obtaining the oil is described in the report. The fuel for the still is obtained from the distillation residues.

Solubility in Dilute Alcohol

There is a group of drugs, including the volatile oils and their constituents, which are soluble in alcohol and only slightly or moderately soluble in water. Reference books state the solubility in alcohol 95% or 90%, but give no information concerning the solubility in dilute alcohols, e.g., 10, 20, 30%, i.e., strengths that may occur in dispensing. To supply this information, a series of experiments were made by D. K. Large and D. H. Nickolson (*Australasian J. Pharm.* 27: 884, 1946). Two methods were used for the liquids: (a) Shaking a measured excess of the drug for about 15 minutes with the solvent and then measuring the excess after separation had occurred. (b) Shaking a measured quantity of the drug with gradually increasing amounts of solvent, until no undissolved material could be seen. For solids method (b) only was used. Under the conditions of the experiments it was not possible to attain the accuracy required for the measurement of absolute solubility, and the figures given are for the approximate solubility under conditions resembling those occurring in dispensing. In most cases agreement between the two methods was good with the notable exception of methyl salicylate which, for 20% alcohol, gave about 1 in 700 by method (a) and 1 in 1000 by method (b).

Although it was realized that the solubility would vary with the temperature, it was felt that the other errors involved in measurements were so much greater than the smaller variations due to temperature changes could be neglected. The temperature range during the experiments was 18° to 23°. In general, increase in solubility occurs with rise in temperature, but there are exceptions. It was observed that a clear saturated solution of eucalyptol at 20°C became cloudy when the temperature rose to 22°C. This has been recorded previously. A saturated solution of paraldehyde (1 in 8.2), clear at 19°C, was turbid when the temperature had risen a few degrees, and at 26°C the

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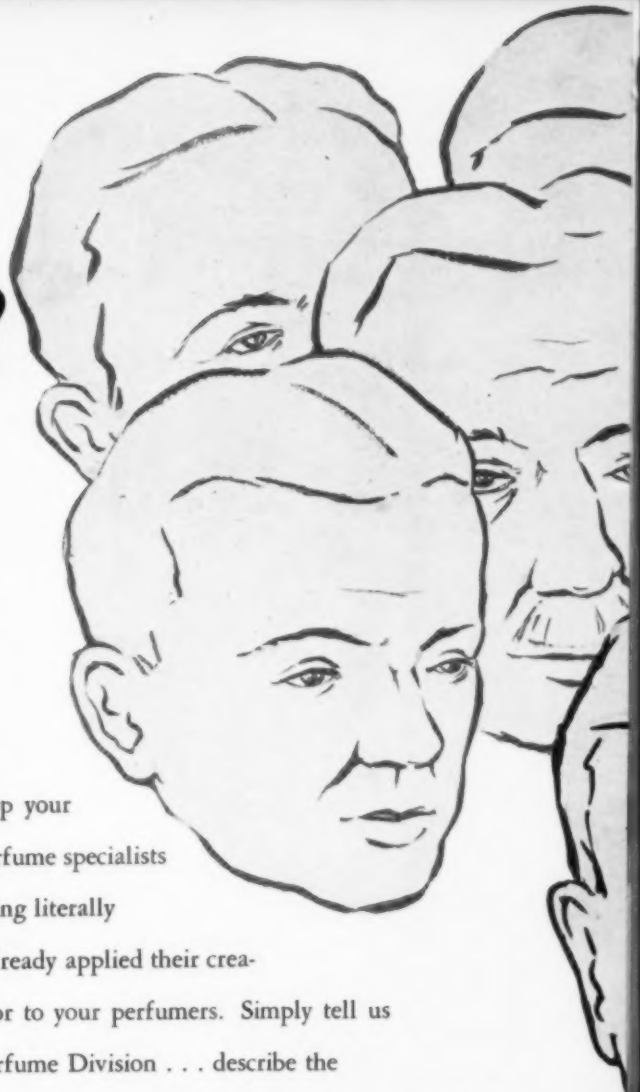

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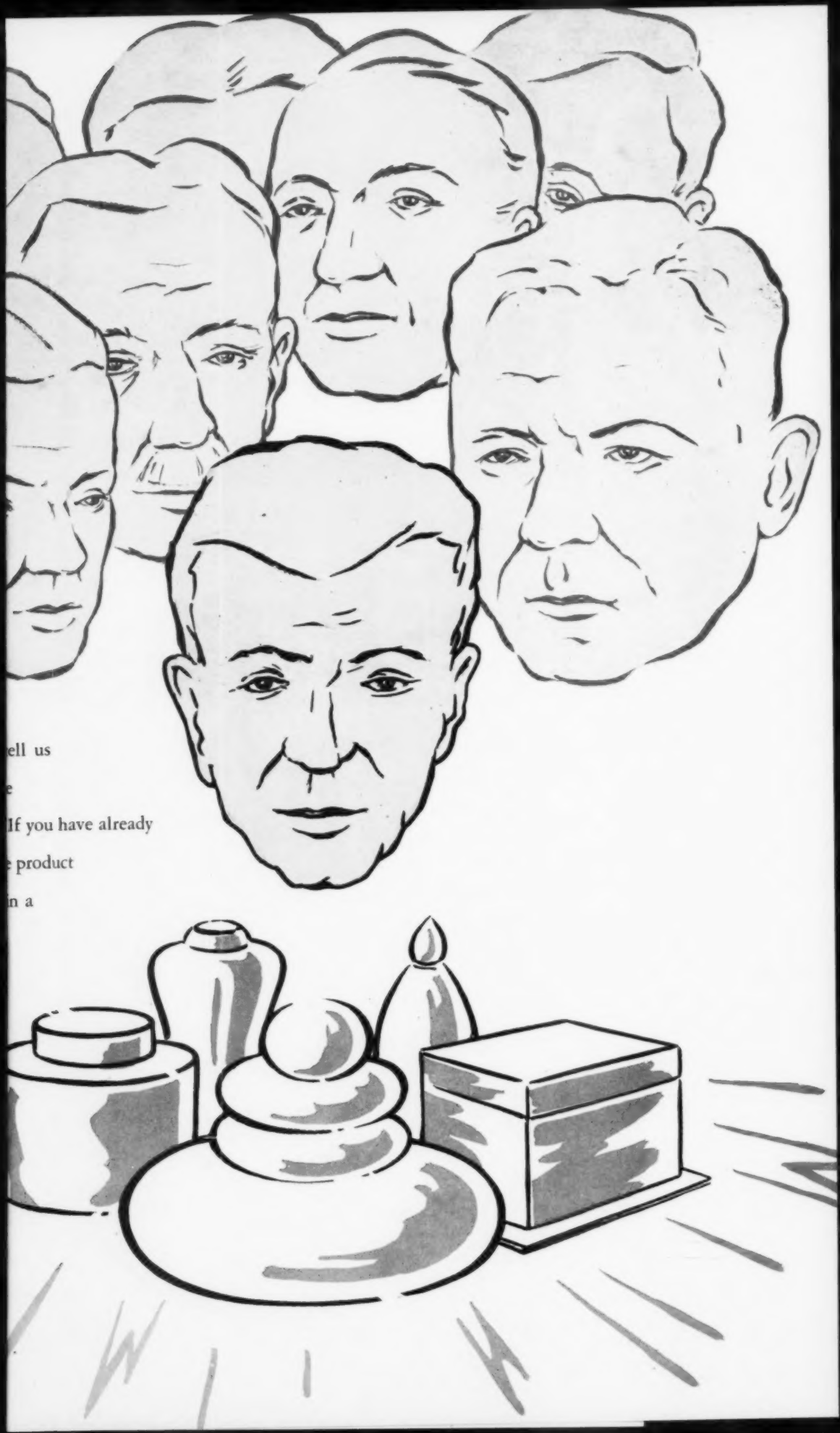

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solubility had decreased to 1 in 9.4. Camphor also becomes less soluble as the temperature rises.

The data obtained in these experiments is summarized in the following table. Figures in the table are the number of parts by volume of the solvent required to dissolve one part by weight (if solid) or one part by volume (if liquid) of the drug:

	Water	Alcohol 10%	Alcohol 20%	Alcohol 30%
Chloroform	200	145	140	110
Chlorbutol	125	105	100	55
Camphor	700	660	400	320
Creosote	130	100	60	23
Eucalyptol	350	200	180	150
Menthol	2400	2300	1600	700
Methyl salicylate	1350	1300	1000	500
Thymol	1400	1100	500	300
Paraldehyde	9	8.6	7.6	5.7

Examples, illustrating the use of these data in actual dispensing problems, are included in the report.

Dutch Angelica Root Oil

An investigation of the essential oil in the roots of *Angelica archangelica* (L) grown in Dutch soil has been reported by S. P. Dijkstra (*Pharm. Weekblad*. 81:387, 1946). Steam distillation of 450 Gm. of the air-dried roots yielded 0.614 Kg. of essential oil. The presence of d-alpha-phellandrene, alpha-pinene, hydroxy-pentadecanoic acid and alpha-methylbutyric acid was confirmed. Primary alcohols and para-cymene were absent. In the terpene fraction, a third terpene was found but not identified. A secondary alcohol, probably borneol (melting point 201° C.) was isolated but could not be identified. The fraction from which the secondary alcohols were isolated contained sesquiterpenes.

Studies on Ambergris

In discussing the properties and constitution of ambergris, H. Janistyn (*Soap, Perfumery & Cosmetics* 20:142, 1947) notes that the odor of the genuine substance, though characteristic and remarkably persistent, is comparatively faint and muted, so that it can be added in fairly large quantities to a number of perfumes. The well-known French perfumes prior to 1914 also contained tinctures of ambergris in many cases, to which they were partly indebted for their incomparable smoothness. The high proportion of odoriferous substances in modern extracts, coupled with the high price charged for ambergris, has caused the use of genuine ambergris to be very much restricted. At the same time, artificial ambergris products, which are mainly based on labdanum, are being more and more employed in the perfumery trade. However valuable, and in many respects indispensable, these substitutes may be, they can never have the effect of real ambergris.

Little is known so far regarding the composition of ambergris. An ethereal oil is separated out by means of steam. Janistyn found that the proportion fluctuated; as a rule it was in the region of 0.4-0.6 per cent, but the residue still possessed a very clinging woody odour. The volatile yellowish oil has a faint animal smell coupled with the smell of tobacco, seaweed and balsam woods. It is extremely persistent, and even when strongly diluted, it still has the original odour to a large extent. Its clinging properties are remarkable. It is undoubtedly one of the most costly essential oils known.

The non-volatile components of ambergris are to a large extent responsible for its fixative effect. Of these "ambrasterol ambrein" has for many years been known as the chief component. A study of these components has been started by Janistyn. Various sorts of true ambergris were used, both the hard, greyish-white varieties with a distinct tobacco odor, and the softer kinds which possess a more animal character. The components were separated economically by chromatographic absorption with standardized aluminium oxide.

First the ambergris was entirely extracted with absolute alcohol, and then diluted with a hot solution of digitonin. In spite of the heavy precipitation, the alcohol was cautiously evaporated, and the dried mass extracted with ether and chloroform. The insoluble mixture of sterol digitonide and digitonin was decomposed with pyridin ether and the sterols obtained were recrystallized. A few per cent of pure coprosterol were obtained together with small amounts of cholesterol and dihydrocholesterol, but a further sterol appeared to be present in small quantities.

The components soluble in ether were saponified cold in ether solution with sodium ethylate. Only traces of sterol esters were present. The unsaponifiable components were chromatographed from a solution of petroleum ether and benzol. Thus a number of zones were obtained, which exhibited a bright mass of color in filtered ultra-violet light. They were separated one by one, the oxide was extracted with chloroform and the residues of the extraction processes were recrystallized. From the central zones of the chromatograph, readily crystallizing epicoprosterol was obtained. The readily soluble and non-retained components produced, according to the type of ambergris, a colorless, very viscous, almost odorless liquid with a high boiling point, or else a crystallisate with a high iodine number. Optically it is dextrorotary. It appears to be identical with "Ambrein", but is not a sterol. It forms the chief component of ambergris.

The upper layers of the chromatograph are strongly colored and have an unpleasant bitter smell. They consist in part of porphyrin. The viscous components referred to are highly unsaturated and can be distilled without decomposition in a vacuum. To other odoriferous substances this fraction imparts an unusual adhesiveness. A polyalcohol ether would appear to be present, such as are found in animal fats (marine animals, etc.). Ketones could not be detected with certainty, even with Girard reagents.

The presence of porphyrins and coprosterol, which may have been produced through the allo-cholesterol, show that ambergris is an intestinal metabolic product. Whether this is normal, or whether it is due to a pathological function, cannot be decided.

The components that are insoluble in alcohol consist in part of the remains of bodies of squids. This proportion fluctuates between 3 and 12 per cent. The ash contains abundant calcium and phosphorus, also sodium, potassium and a large amount of copper.

Noting that the studies are being continued, Janistyn summarizes his observations by stating that ambergris consists of a certain proportion of sterols, while the chief components are of an alcoholic, ethereal and non-alcoholic character. Almost all are highly unsaturated. In addition to the volatile components, the non-volatile components play an important part in the fixing properties.

Champignal

An item in *Soap, Perfumery and Cosmetics* (20:272, 1947) announces that champignal is now being produced by a British company. Champignal, the cyclic acetal of ethylene glycol and hydratropic aldehyde, is a colorless liquid of distinctively mushroom character in odor and taste. Its fungoid, earthy smell suggests its restrained use in certain lily, gardenia, chyre and crepe types of perfume—and as a modifying factor for oakmoss blends and artificial ambers. It might also prove useful as a flavoring material.

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PURCHASING DEPARTMENT

Cuban Alcohol Meets Sales Resistance — Glycerin Eases — Menthol Firm

Approximately 1,250,000 gallons of ethyl alcohol, the latest in a series of offerings from Cuba, was without a buyer at this writing, according to a statement made by the U. S. Commercial Co., a subsidiary of the Reconstruction Finance Corp.

On May 15 RFC rejected bids on two offerings of industrial alcohol, it was learned. Both offerings were made out of storage. RFC paid Cuban sellers 65c a gallon for the alcohol and paid a duty of 12c a gallon, bringing the aggregate cost to 77c a gallon.

RFC officials viewed the lack of interest as an indication of unwillingness on the part of U. S. manufacturers to pay a price which RFC considered was in line with a "fair market value."

Cuban alcohol will be brought into the country, it is understood, stored and offered to U. S. manufacturers at some future date.

Cuban blackstrap molasses is expected to arrive here at regular intervals, but the raw material for alcohol is not expected to have a reception similar to the finished product from that source. Blackstrap is much in demand among fermentation alcohol producers.

The current alcohol supply situation on spot is described as "comfortable." While no surplus exists, consumers are able to obtain enough to meet most of their essential requirements. A strike among the employees of a large Philadelphia alcohol producer curtailed supplies somewhat but the strike is not expected to be of long duration.

Glycerin Easier

The recent trend of prices on crude glycerin has been downward but major producers are continuing to quote 50c per pound for refined material in tank cars.

Although supplies of glycerin remain short, prospects are that the coming months will see a better balance between supply and demand owing to larger quantities of raw materials becoming available. Estimates place the exportable surplus of copra from the Republic of the Philippines during 1947 at 650,000 tons, 9-10 percent above the 1946 figure. A larger quantity of inedible tallow and grease from slaughtering houses in the United States is anticipated since an increase of 10 per cent is expected in the cattle kill.

Export control of glycerin will automatically expire June 30 but reports in the market indicate that efforts will be made to have the regulations extended since it is feared that in view of the many export inquiries in the market, world requirements would result in too much of a drain on domestic supplies.

Thymol Tight

The supply position in thymol, which normally enjoys a wide demand for use in the manufacture of proprietaries, thymol derivatives, perfume preparations and in medicine, has failed to improve. Prices on spot ranged anywhere from $3.15 to $3.65 per pound as to quantity and seller but the very limited amounts available would indicate that the market is practically in a nominal position.

Menthol Up

The market for natural menthol has sunk into inactivity on spot but this has failed to have the slightest effect on market views in Brazil. Latest cables from Brazil are equivalent to $8.50 per pound with only limited amounts offered at this figure. This condition has resulted in an advance here of 25c per pound with a price range now prevailing of from $8.50 to $8.75 per pound.

There is nothing in the picture which would indicate just how soon or to what extent Japan and China will attack the Brazilian article but it is indicated that the Far East will soon stage a vigorous comeback in the market for this article.

Stocks of crude peppermint oil in Shanghai, the manufacturing and shipping center for China's peppermint oil and menthol industry, reportedly are sufficient to supply the 1947 domestic market and furnish foreign buyers with approximately the same quantity as in 1946.

China's peppermint oil and menthol industry depends primarily upon world markets, inasmuch as domestic consumption is small. Total shipments of peppermint oil during the first 11 months of 1946 were estimated at approximately 22,600 kilograms. Exports of menthol crystals in 1946 totaled about 36,500 kilograms a sharp decline from peak prewar exports of nearly 454,000 kilograms.

Survival of China's peppermint oil and menthol industry is contingent upon reestablishing former world markets. Unless production can be increased, it is possible that some of the remaining factories will close.

This industry was seriously hampered by the loss of export shipments during the war and thereafter the curtailment of peppermint plant acreage. Inflation and civil strife have prevented recovery since VJ Day.

After a complete shutdown for over six months, production of racemic menthol U.S.P. has been resumed here, due to an improved supply of raw materials. It was before the war that racemic menthol was recognized by the United States Pharmacopoeia thus the article may be used in all products that require natural menthol.

It is expected that by the latter part of June there will be available fairly substantial quantities for domestic consumption. In 1945 production of synthetic, technical and U.S.P. menthol reached approximately 85,000 pounds. Output of racemic was about 40,000 pounds in 1945, later declining to about 15,000 pounds in the first half of last year just prior to the time when it became necessary to discontinue the output because of the inability to obtain raw materials.

Prices quoted on racemic menthol follow: $7 per pound for 500 pound lots; $7.10 for 50 pound lots; $7.25 for 25 pound lots, and $7.40 a pound for five pound tins.

• Prices quoted in this section were current on the first of this month.

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Offerings From Abroad Relieve Spot Botanical Market — Vanilla Beans In Firm Position

The current demand for crude botanicals appears routine in character. Except for moderate call for crudes of seasonal interest the market continues quiet. Considerable hesitancy is shown among buyers toward increasing inventories beyond immediate needs.

Trade sources state that offerings from primary sources in the Far East are becoming more profuse thus reversing the trading trend of past months when domestic buyers were seeking instead of being sought. Collection uncertainties in 1947 for both foreign and domestic botanicals, however, remains a matter of concern.

Imports of belladonna leaves and roots from the United Kingdom, Australia, Italy, Yugoslavia, Hungary, and Bulgaria in the amount of 69,942 pounds for January and February 1947 represents a larger total than like receipts for the combined years of 1945 and 1946 and possibly since 1942. This increase in imports will place the domestic product on a competitive price basis, provided of course, present import quantities continue. Chamomile flowers, another botanical exhibiting signs of import gains, registered January-February receipts from Argentina and Belgium amounting to 151,676 pounds, also larger than such imports for the combined years 1945-46. Prior to World War II practically all chamomile originated in central and southern Europe. These European sources are coming back slowly, so that ample supplies should be available during 1947.

The downward trend in crude botanical prices which had gotten underway considerably ahead of the usual spring declines continued into the present trading period. This was particularly true on the imported items, since collection costs, and scarcities tend to hold prices firm on the domestic article.

Vanilla Market

The cost and attitude of labor, in view of inflation and world unrest, is as important a factor in the price and quality of imported commodities as it is in products of home manufacture, said Ray C. Schlotterer, Secretary of the Vanilla Bean Association of America, Inc., in discussing trends in the vanilla bean market at the meeting of the Flavoring Extract Manufacturers' Association in Atlantic City.

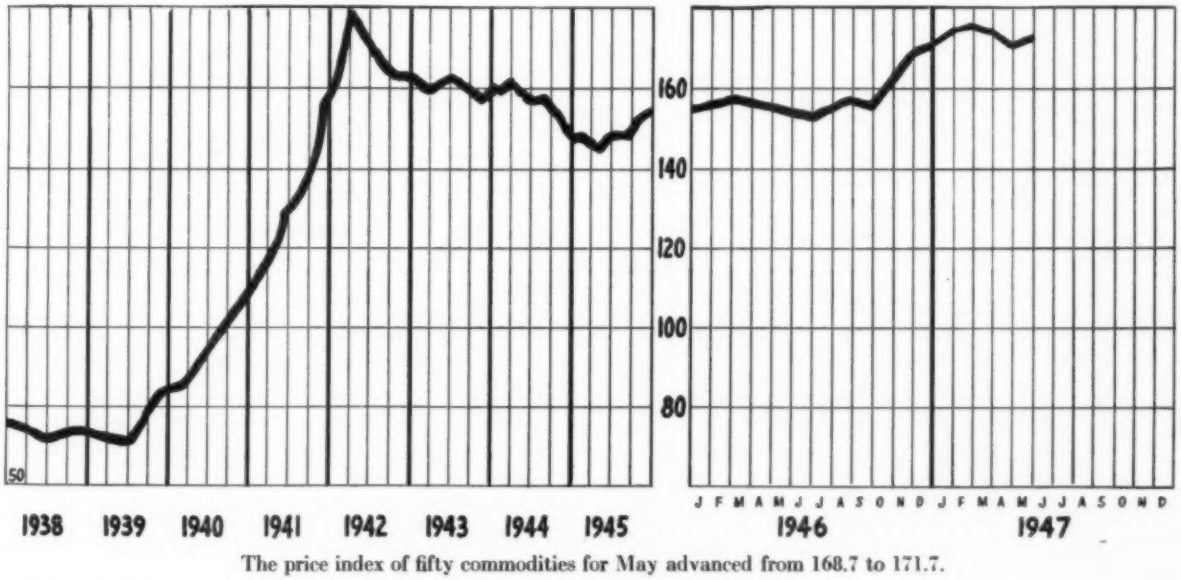
In considering the reaction of supply and demand, let us look at the factors in the price picture where Bourbons and Mexicans are concerned, said Mr. Schlotterer. One of our members reports that the prices of vanilla beans will remain firm until the end of 1947, he continued. He bases his prediction on the fact that the Madagascar authorities, who in turn control the Comore group of islands, have fixed minimum prices for the rest of 1947 below which no one can purchase beans; that the next vanilla crop will probably be the smallest in tonnage in over 25 or 30 years; and that if minimum prices are maintained by the French authorities, vanilla may not only continue at the present level but possibly be advanced.

Another report states that as the supply in the hands of importers is not large and replacements are difficult, as well as at high price levels, the "chances for a lower market is slim if not altogether out of the question" reported Mr. Schlotterer. This report states that the coming crop is a failure, and that the unrest in Madagascar is the basic factor. Another reports that as minimum prices are fixed by the Madagascar Government, he does not expect them to be changed during 1947, and in view of the more liberal supply of sugar, the demand will keep the market at a high level, even with the large crop of Mexican beans which is in sight, as well as continued high prices of Tahiti beans.

On the other side of the picture, said Mr. Schlotterer, some observers claim that if business conditions in this country change following the summer months, prices of all commodities will follow, and even though substantial shipments are on the way, or still to be shipped, in view of heavy unsold

(*Continued on page 847*)

50 Raw Materials—Weighted Price Index. 1926=100.



The price index of fifty commodities for May advanced from 168.7 to 171.7.

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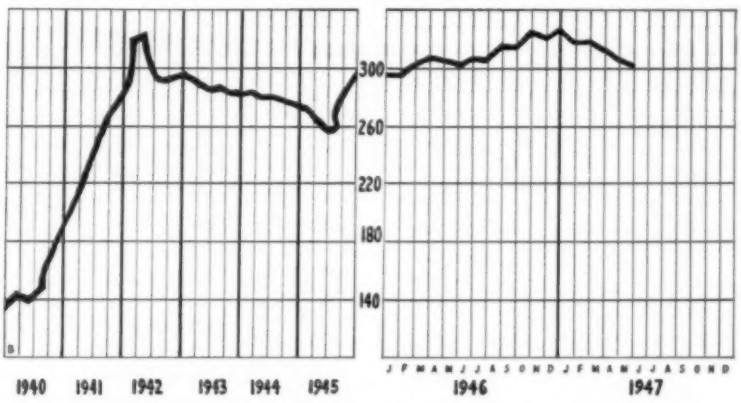
Arnica flowers 50c
Belladonna leaves 20c
Benzyl propionate 5c
Calamus oil $2.50
Carnauba wax $1.10
Cedar wood oil 20c
Geraniol $1
Geranium oil African $4.
Juniper wood oil 18c
Menthol natural 25c
Methyl anthranilate 40c
Musk ketone 45c
Peppermint oil, Natural 45c
Redist. 25c
Petit grain oil SA 10c
Potassium citrate 2c
Sabadilla seed 5c
Santonin $5.
Sodium citrate 2½c
Terpineol 9c
Terpinyl acetate 7c
Turmeric root Aleppy 2½c

DOWN

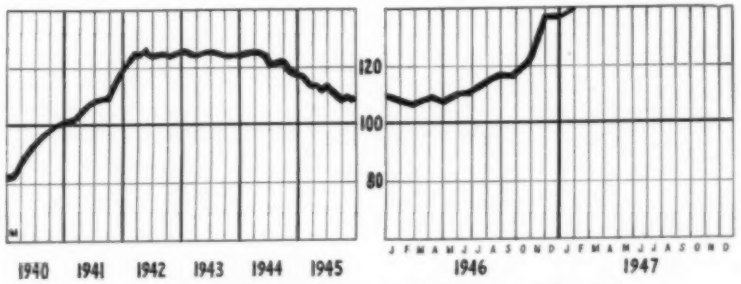
Aconite root 5c
Almond oil, bitter 25c
sweet 5c
Arabic gum sorts ¾c
Balsam Copaiba SA 30c
Balsam Tolu 20c
Beeswax white 1c
Benzoin gum Sumatra 10c
Bergamot oil 30c
Burdock root 1c
Cantharides Chinese 25c
Cassia oil Redist. 45c
Citral $2.10
Citronella oil, Ceylon 7c
Java 75c
Clove oil 5c
Colocynth pulp 5c
Dandelion root 5c
Elder flowers 2c
Eucalyptus oil 5c
Gamboge gum 10c
Geranium oil Bourbon 25c
Grape fruit oil 20c
Henbane leaves 5c
Horehound herb ½c
Hydroxycitronellal $3.50
Ipecac root 25c
Jalap root 3c
Spike oil 10c
Lemon grass oil 25c
Mastic gum 25c
Mercury $2.
Nux vomica buttons ½c
Orris root Flor. 1c Verona 2c
Patchouli oil $6.
Rue oil 10c
Saffron Valencia $1.50
Sassafras oil Artificial 5c
Senna Tinnevelly 4c
Soap bark crushed 1c
cut 1c
Stearic acid TP 5c
Vetivert oil Java $5.

15 Botanicals—Weighted Price Index. 1926=100.



The botanicals index declined from 303.5 to 300.1. Balsam Tolu, Ipecac, Nux vomica, orris and senna were lower. Belladonna advanced.

15 Medicinal Chemicals—Weighted Price Index. 1926=100.



The medicinals index advanced slightly from 167.8 to 168.1. Mercury was down but menthol advanced again.

Vanilla Market

(*Continued from page 845*)

stocks, price sogginess may result. Another member reports that even though prices are being maintained by the French authorities, in view of the fact that the law of supply and demand is now in action, a period of weakening prices is in the offing. One member states that shortages of Bourbons made up from other sources such as Mexico, Guadalupe, Dominica, Java and perhaps Tahiti, indicates that extract manufacturers who have depended primarily on these sources should be prepared to make some changes in their formulas.

However, the Mexican market is of an entirely different character than the Madagascar-Comore picture, according to Mr. Schlotterer. With two very short crops, and now the first arrival of a larger one with predictions of another to follow in view of the heavy flowering of the plants, the transition from short to large crops will mean a weaker price. This is further predicated on the fact that Mexican beans today are in the neighborhood of $1 a pound cheaper than a year ago, and, depending on the quality, in some instances $1.50 a pound cheaper. Others state that while the crop is substantial it is in very strong hands. Thus, while varied fluctuations will occur from time to time, there is doubt that there will be any drastic changes in the prices now being quoted for new-crop whole Mexican or Mexican cuts.

Mexico's vanilla crop in the 1946-47 season is estimated at from 300,000 to 400,000 pounds as compared to slightly

NATURAL PERFUME MATERIALS

A Study of

CONCRETES, RESINOIDS, FLORAL OILS and POMADES

By Dr. Y. R. Naves and G. Mazuyer

Translated from the First French Edition by Edward Sagarin

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Because of the choice and the diversity of the materials treated, this volume will be of interest to all those connected with the perfume industry and with the art of the perfumer. It will be consulted by chemists and by technicians, as well as by those who will seek in the history of the methods practiced by the Perfumers of Persia and of Egypt the foundations of the modern organic chemical industry. It will be an important item on the shelves of all technical and industrial libraries.

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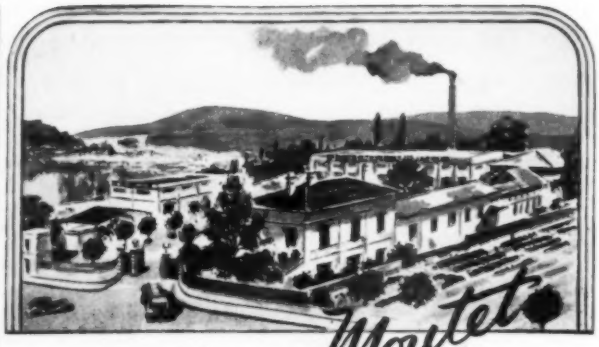

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less than 100,000 pounds in the 1945-46 season.

The large increase this year is the result of excellent weather conditions, as well as of new plantings in the district of San Jose Aceteno, in the State of Puebla, according to a report in "Foreign Commerce Weekly." Planting in this district was started in 1938 as a result of the rising price for this commodity. The drought which prevailed in the producing areas during the past 3 years retarded the progress of the San Jose Acateno district, but, with the favorable weather conditions prevailing since the spring of 1946, the district has rapidly grown in importance and now supplies approximately 60 percent of total production. Curing facilities near San Jose Acateno are limited, and a large proportion of the beans are taken to Papantla to be cured.

Should the weather continue to be favorable, an even larger production is expected during 1947-48 with a larger proportion of the total originating in the San Jose Acateno district, according to this report.

Both Synthetic and Natural Varieties Of Vanilla Insufficient to Meet Present-day Needs

Some of the most perfect synthetic organic products made through chemistry are in the group of flavoring materials. Vanillin, obtained through various processes, is the ideal replacement for the vanilla bean of commerce.

Three processes are commercially used in this country for the production of vanillin. The lowest cost method is said to be the one based on lignin. The other methods of producing vanillin are from guiacol, fractionated from the phenols in coal tar, and through isoeugenol obtained from eugenol, the latter an isolate from the oil of cloves or cinnamon leaf oil. Vanillin derived from lignin or lignin sulfonic acid has the advantage of a low cost raw material—lignin removed from wood in pulp-making plants.

These processes largely account for the annual production of more than 650,000 pounds of vanillin.

The U. S. Tariff Commission reported the production of 654,005 pounds of vanillin during 1945, while sales reached a total of 604,600 pounds, the latter with a value of $1,666,100. The unit value is placed by the commission at $1.72 per pound, compared with $2.24 in 1944.

Vanillin production in 1944 was 653,000 pounds and sales 681,020 pounds, while the output in 1943 amounted to 666,746 pounds, and sales 683,963 pounds. These figures do not include vanilla extracted from natural materials.

Vanillin prices are quoted over a wide range dependent upon the process. The product obtained from lignin is named at $3 to $3.05; that from guaiacol about the same or at $3 to $3.15; and vanillin from eugenol at $4.50 to $4.65.

Producers of guaiacol vanillin are not able to meet current demands. The bulk of production is sold for the remainder of the year, and the same probably could be said for those who make vanillin through the other processes.

ESSENTIAL OILS

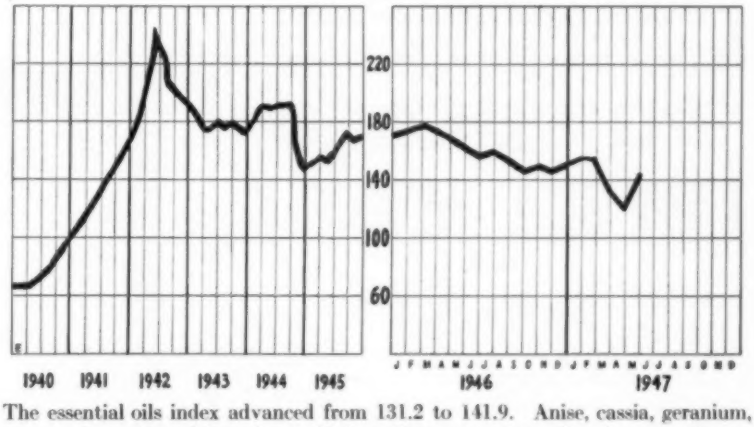
The downward trend in prices for essential oils, in progress during the past months, continued into the current trading period.

Essential oil imports for the first two months of this year advanced 3 percent above receipts of the comparable period of 1946. Such oils as anise, cajeput, citronella, petitgrain, and bois de rose are arriving in good quantity. During January and February 66,471 pounds of natural camphor oil were received from Japan. The only 1946 arrivals of this commodity were 25,681 pounds from China while none came in during 1945.

Anise oil, cedarwood, clove and hemlock show reductions but current reductions are confined within more narrow limits. Reductions were also noted in citronella, bergamot, lemongrass, and oil nutmeg. Citral and the ionone prices have been working in favor of buyers. Sandalwood, pimento berry oils are lower but the mint oils continue in a firm position.

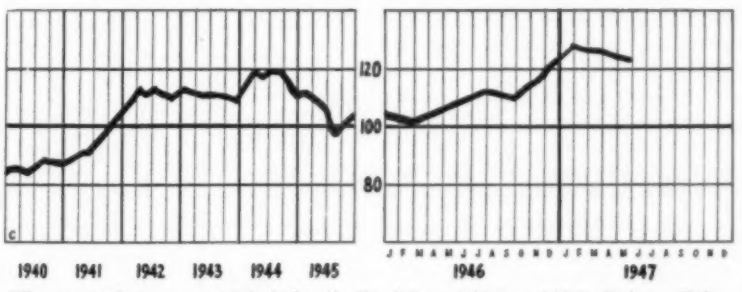
A decline in the price of Bourbon geranium oil established a new inside price of $13.50 for this commodity. A further reduction in certain grades of French lavender oil is noted. A 20 percent decrease in grapefruit oil established a new inside price of $1.90 for this item. Rue oil followed the lead of rosemary in undergoing a 10c decrease to $4.90.

15 Essential Oils—Weighted Price Index. 1926=100.



The essential oils index advanced from 131.2 to 141.9. Anise, cassia, geranium, peppermint and sandalwood were higher. Bergamot, citronella, clove, eucalyptus were down.

25 Cosmetic Raw Materials—Unweighted Price Index. 1926=100.



The cosmetic raw materials index declined from 128.1 to 125.8. Balsam Tolu, beeswax, stearic acid were lower. Menthol advanced.

NATURAL PERFUME MATERIALS

A Study of
Concretes, Resinoids, Floral Oils and Pomades

By Y. R. NAVES and G. MAZUYER
Translated by EDWARD SAGARIN, Givaudan-Delawanna, Inc.

This excellent volume offers a diversity of materials that will be of interest to all those connected with the perfume industry. In addition to being a well documented history of the methods of extraction of perfumes and the agents employed in the course of the centuries, NATURAL PERFUME MATERIALS describes the raw materials used in the extraction; the choice, purification and recovery of volatile solvents; the preparation of tinctures and infusions; the treatment of concretes; resins and balsams; the extraction of the aromas of fruits and distilled flower waters; the manufacture of pomades and perfumed oils by the use of vegetable and animal fats and mineral oils, properly chosen and prepared; the processes of digestion and enfleurage on solid and liquid absorbents; and finally, the extraction of decolorized absolutes and pomades from the diffused products.

Also included is information on the chemical composition and analytical examination of the products of extraction by volatile solvents, enfleurage and digestion. The book concludes with a series of descriptions of plant and raw materials that are subjected to extraction.

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(b)	**Spermaceti**	90
(c)	**Glycerine**	39
(d)	**Distilled water**	380
(e)	**Preservative**	1
(f)	**Aluminum sulfate**	150
(g)	**Distilled water**	150
(h)	**Titanium dioxide**	20

Dissolve (f) in (g), then stir (h) into the solution. Heat (c) and (d) and (e) in the mixing kettle to 90° C. Heat (a) and (b) also to 90° C. and introduce into the water phase with fairly vigorous agitation. Stir until the emulsion is well formed and almost cool, then add gradually the mixture of (f) and (g) and (h). Titanium dioxide serves merely as a filler to give the cream more body and a whiter appearance. Talc can take its place, but is not as good.

An absorption base type of anti-perspirant cream can be made from:

(a)	**Absorption base**	240
(b)	**Aluminum sulfate**	150
(c)	**Distilled water**	600
(d)	**Titanium dioxide**	10

Dissolve (b) in (c), add (d). Add this mixture gradually to (a) while stirring, with both phases at 50° C. Stir until 25° C. is reached, pass through an ointment mill.

HAIR COLOR RESTORERS: Could you furnish us with a good formula for the preparation of a hair color restorer, that we could manufacture? Please let us know as we get a lot of calls for a hair color restorer and we would want to make a good product. Moravia.

It is obviously impossible to give you a single formula for a hair color restorer, inasmuch as a range of colors is required and specific formulation is necessary for each color. The subject is a very extensive one and requires considerable knowledge of dye chemistry and a comprehension of the dangers inherent in the use of coloring agents. However, you will find a good deal of information in a rather comprehensive review of such products which appeared in our publication in December 1945, on page 878. I should also like to call your attention to an even more comprehensive report abstracted in the August 1941 issue, pages 205 and 207, and continued in the September issue on page 327.

NON-AMMONIA PERMANENT WAVE SOLUTION: I would greatly appreciate it if you would send me a permanent wave solution which does not use ammonia. Worcester.

A type formula for a non-ammonical permanent wave solution calls for the use of:

Postasium sulphite	5.50
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Sodium carbonate	0.45
Ammonium carbonate	0.25
Distilled water	91.15

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A product serving as a dog deterrent has been described as containing equal part of alcohol, soft soap and pine oil. Another formula for the same purpose which is sprayed with an insect spray gun is made by stirring the following ingredients until solution is obtained:

Naphthalene flakes	4 oz.
Paraffin wax	¼ oz.
Gasoline	½ pt.
Rosin	¼ oz.

CREAM INCORPORATING LEMON JUICE: Our customers are asking for an efficient modern, lemon cream incorporating lemon juice. Can you suggest suitable formulas? I am particularly interested in one using an oxycholesterin base. Cleveland.

A product using an oxycholesterin base has been described in U. S. Patent 1,990,676. It is made as follows:

Five ounces oxycholesterin and 95 ounces petrolatum are thoroughly mixed to form an absorption base. Twenty ounces petrolatum and three ounces beeswax are melted together, and 30 parts of the base are added with thorough stirring. Fifty ounces natural lemon juice are added to the above mixture while still hot and stirring is continued until the mass is cool.

Another type of cream using lemon juice, more in the order of a vanishing cream, is made as follows:

Glyceryl monostearate	12
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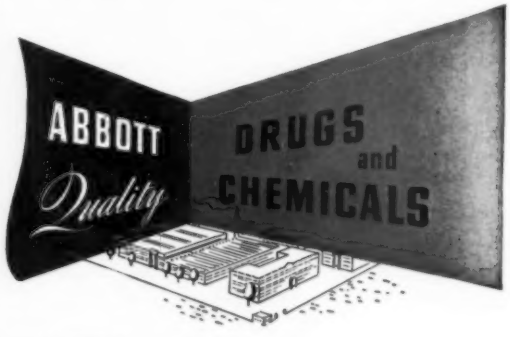

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Acrylics And Other Synthetic Resins Used In Dentistry, by Stanley D. Tylman, M.S., D.D.S., Professor of Prosthetics and Head of Crown And Bridge Department, University of Illinois, College of Dentistry, and Floyd A. Peyton, Ph.D., Assistant Professor of Dentistry, Department of Metallurgy, University of Texas, School of Dentistry, 480 pp., Illus., J. B. Lippincott Co., Phila., $10.

This new book is the answer to a great need in the new era of dentistry. The information is grouped in two sections so that busy dentists can easily find the answer to technical and clinical problems that may confront them in daily practice. Part I supplies the much needed analysis of the chemical and physical nature of resins. It includes the newer materials for dental prosthesis; plasticizers, catalysts, pigments and opacifiers for dental resins; processing dental resins; accessory materials for resin restoration, etc. Part II covers the clinical application of synthetic resins and technics involved in their use. Here the authors give authoritative discussions of acrylic inlays, color perception and reproduction; resin crowns; fixed bridges; complete dentures; repairs and replacements; velum obturators and somatoprostheses, etc. Technics of restoration are clearly described and graphically illustrated.

Modern Dermatology and Syphilology, by S. William Becker, M.D., Clinical Professor of Dermatology, University of Chicago, and Maximilian E. Obermayer, M.D., Clinical Professor and Chairman of the Department of Dermatology, University of Southern California, 1017 pp., Second Ed., 461 Illus., J. B. Lippincott Co., Phila. $18.

One of the standard clinical books in the literature revised and brought up to date to conform with the many new advances in the field. This 2nd Edition offers a fresh attack on the teaching problem of dermatology, embodying many originalities of approach, viewpoint and technic. Written in an informal conference style it covers all phases of dermatology and syphilology. The authors have included those valuable, practical hints and observational slants which are the individual expert's best contribution to everyday practice. Diagnosis is given clearly and concisely. Treatment includes actual prescriptions listed alphabetically. A table presenting cross-sections of cutaneous lesions enables the reader to visualize, at a glance, the significanceof the terms designating primary and secondary lesions. Among the new and revised subjects in this edition are Trophic and Deficiency Diseases, revealing the great advances in vitamin therapy; Lepra; Dermatologic Diagnosis, describing the use of dioxan in microscopic sections. Of great value in diagnosing cutaneous eruptions due to drugs is a table listing the disorders and the causative drugs. There is also an outstanding chapter on Tropical Diseases, important today because of the increased appearance of these diseases due to World War II. The section on Syphilology covers all the latest aspects of importance today in anti-syphilis campaigns. The authors include a useful chart showing today's effective treatment and control of syphilis, consider the value of quantitative serologic and verification tests for diagnosis, and explain the rapid treatment methods so important in the control of disease.

It's An Allergy, by Frank G. Crandall, Jr., M.D., Director Allergy Clinic, University of California, 313 pp., Murray & Gee, Inc., Hollywood, $3.

This book was written for the layman and the allergic patient. It is replete with fascinating case histories, with special chapters devoted to such common allergic manifestations as asthma and hay fever, as well as the less frequent types of allergic ailments. A portion of the book is given over to a very comprehensive discussion of the definition, frequency, diagnosis and treatment of allergy. After reading these chapters the allergic victim will have a clearer understanding of his condition, its probable cause. the treatment routine he will have to follow and the likelihood of his ultimate recovery. The chapter of advise to allergic patients should be invaluable both to the patient and his physician as it presents, in simple, readable language, a set of rules by which the allergic patient may regulate his living in such a manner as to obtain the maximum relief.

Advances in Enzymology and Related Subjects of Biochemistry, edited by F. F. Nord, Fordham University, New York, Volume VI, 563 pp., Interscience Publishers, Inc., New York, $6.50.

When Ergebnisse der Enzymforschung became extinct, Advances in Enzymology was initiated as an outlet for the publication of critical reports abutting on the borderland between physiology, chemistry, microbiology and physical chemistry. The continued participation of this organ in keeping abreast of this vast subject has again resulted in a volume which, as has been the endeavor since its inception, approaches the true polis of the enzymologist. It is also intended in the future to rotate and expand the subjects reported, at the same time limiting the articles to topics that are reasonably ready for critical discussion. Contents: The Bacterial Amino Acid Decarbozylases, by Ernest F. Gale, Cambridge, England. Enzyme Problems in Relation To Chemotherapy, "Adaptation," Mutations, Resistance, and Immunity, by M. G. Sevag, Philadelphia. Biological Antagonisms Between Structurally Related Compounds, by D. W. Woolley, New York. Adenosinetriphosphatase Properties of Myosin, by V. A. Englehardt, Moscow. States of Altered Metabolism in Diseases of Muscle, by Charles L. Hoagland, New York. Acetyl Phosphate, by Fritz Lipmann, Boston. Microbial Assimilations, by C. E. Clifton, Stanford University. Chemical Changes in the Harvested Tobacco Leaf. Part I. Chemical and Enzymic Conversations during the Curing Process, by Walter G. Frankenburg, Millersville, Pa. The Actions of the Amylases, by R. H. Hopkins, Birmingham, England. The Amylases of Wheat and Their Significance in Milling and Baking Technology, by W. F. Geddes, Saint Paul. Tocopherol Interrelationships, by K. C. D. Hickman and P. L. Harris, Rochester.

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Plastics in Medicine and Surgery

(*Continued from page 775*)

sizes which are heated to permit shaping to the contour of the fractured limb. Blaine[4] has been working on a method to overcome the disadvantage of using the heated plastic. For this purpose an acrylic dough is used, to which an absorbent filler has been added. The dough is employed cold and is applied by hand; setting being accelerated with radiant heat.

A similar procedure is also being developed for making cranial plates and inlays for the closure of skull defects.[18] If such a method proves feasible for man, it will greatly facilitate the work of workers who have been using methyl methacrylate plastics, not only in skull repair work,[1,19,20] but in many other phases of surgery and medical investigation. Thus, Sheldon and his associate,[21] employed an acrylic "cap" to replace the top of the skull in monkeys to make direct observation of the brain in experimental shock.

In arthritis, where destructive changes of the smooth joint surfaces interfere with free movement, acrylic cups have helped to relieve stiffness and pain. Arthroplasty, in which the uneven joint surfaces were replaced with acrylic caps, has been successfully accomplished, not only on hip joints, but also in the reconstruction of the small joints of the hand and foot.[8,15,22,23] Preshaped acrylic implants have also been used in plastic surgery to correct facial deformities resulting from bone loss through disease or injury.[24,25] The use of acrylic plastics for artificial palates, jaw bones and jaw splints has been quite successful.[26] The use of Lucite tubes as drains in cases of chronic osteomyelitis has resulted in satisfactory healing of the infections.[27]

Current experimental work indicates another potentially important use for acrylic tubes. In Hufnagel's[28] investigations, sections of the aorta (the large artery that carries blood directly from the heart) were replaced by highly polished Lucite tubes. In some of the animals, the artery with its plastic tube was still functioning satisfactorily after six months. The striking result of these experiments was the complete absence of blood clots either in the plastic tube or in the blood vessel itself. These studies thave major implications for surgery in humans.

Surgical bandages, dressings and the like may also be made with this plastic. According to British patents[29] such products may consist of a stretchable film made from methyl methacrylate plasticized with dibutyl phthalate; the film being coated with a suitable adhesive composition. Polymerized vinyl acetate may be employed for similar purposes, or combinations of the two plastics may be used to make the bandages and dressings.

Because of its toughness, resistance and inertness, methyl methacrylate has found many uses in the production of medical appliances like disposable hypodermic syringes, rectal dilators, pesseries, protective shields, transfusion tubes, incubator covers, and many others. Because of its unique ability to "pipe" cold

light, this plastic has found many uses in a wide range of diagnostic and surgical instruments. Starting with the illuminated tongue depressor, the doctor has at his disposal highly efficient cystoscopes, sigmoidoscopes, proctoscopes, otoscopes, speculums, tonsil probes, brain probes and even surgical retractors which not only spread incisions but illuminate them as well. Such instruments are advantageous because they provide a cool, white, shadowless light which shows up the tissues in their true colors.

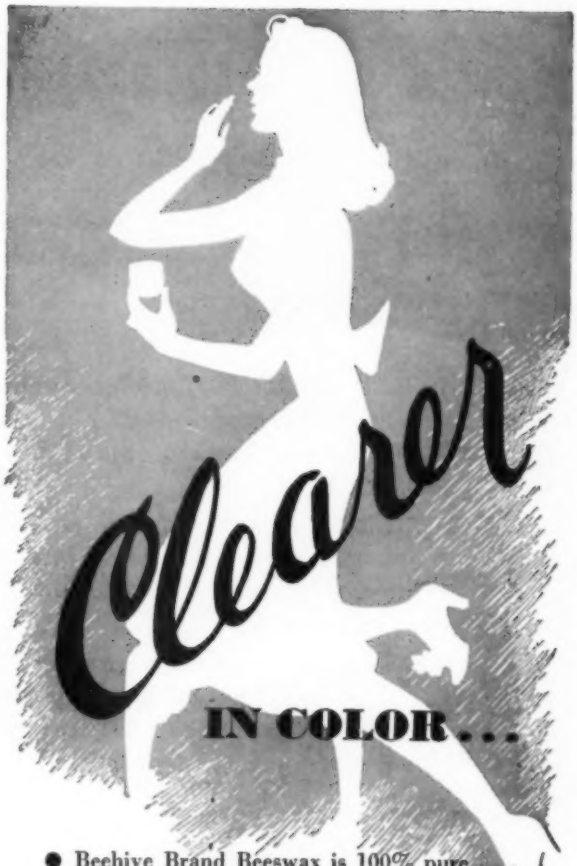
A most interesting use for methyl methacrylate is as a permanent mounting medium for many kinds of biological, anatomical and other specimens. Objects imbedded in this clear, transparent plastic retain their normal color and structure. They are invaluable for teaching, demonstration and display purposes.

Nylon has found some important uses in surgery, particularly as a suturing material. Nylon is a generic term applied to a large group of chemical compounds consisting of polymeric amides. The nylon used in making surgical sutures is odorless, tasteless, resistant to most chemicals, and withstands autoclaving without loss of toughness and elasticity. It does not deteriorate significantly with age. The nylon is not absorbed when buried in human or animal tissues. It is extremely strong.[1] As compared to a strand of silk of the same size, a strand of nylon has been found[30] to be stronger, more elastic and more resistant to moisture absorption. Its only drawback is the tendency for knots to slip, hence double knots have to be tied.[4]

Many surgeons have recommended nylon as superior to silk or other suture material. Huxton,[31] for example, has stated that nylon causes a minimum of tissue irritation and its use as a buried suture material has shown its superiority to the materials in common use. From observations on 300 operations, he found that nylon-sutured wounds healed rapidly and with no complications. Somewhat more recently, Rowe[32] reported that in certain orthopedic procedures, nylon offers advantages over other bone suture material, including wire. Operating time is shortened and surgical technic simplified when nylon is substituted for a fascial or tendon suture. In experimental work on animals, Weiss and Taylor[33] used fine nylon strands to aid in bridging nerve gaps.

There are indications that nylon fabric may also have surgical applications. Burman[34] for example, used "parachute" nylon as an interposition membrane in arthroplasty of the small joints of the finger. Using a fine-gauge nylon cloth backing for dermatome grafts, other workers[35] obtained superior results in skin-grafting operations.

The vinyl or Vinylite resins, of which polyvinyl alcohol, vinyl chloride and vinyl acetate are important representatives, have found a number of valuable uses in medicine and surgery. As was pointed out in a review[36] in DRUG AND COSMETIC INDUSTRY, polyvinyl alcohol has many actual and potential applications. It has been used as a plasma substitute, in burn-treating films, for forming protective coatings on the skin,



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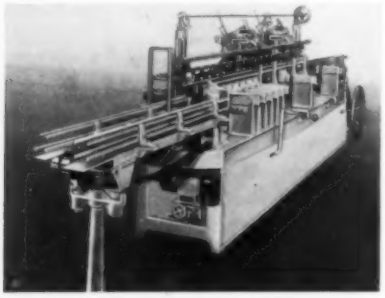

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Vinly resins have found some use as dental prosthetic materials.[3, 37] Far more important, however, is the use of vinyl compounds, particularly polyvinyl chloride, in somatoprosthetics.[38, 39, 40] Temporary or permanent masks may be molded from these plastics, which may be pigmented to match the skin. After casting in molds, artificial ears, noses or fingers can be made adhesive so that the restoration will adhere for several days unless undue strain is put on it.[15] Remarkably life-like artificial hands, complete with hairs or nail polish (as required) have been made from Vinylite resin plastisols.[41]

Polyvinyl chloride tubes have been recommended for surgical drainage. Almost indistinguishable from tubes of natural rubber, the plastic products are unaffected by age, water, salt solutions, bile, pus, or body fluids, inorganic acids and alkalies, or mineral oils. They have been employed successfully for drainage of the pelvis, gall bladder, and peritoneal and pleural sacs.[42] Polyvinyl chloride tubes have also been used in anesthesia; replacing the rubber tubing which is inserted in the respiratory passages.[4] Used for prolonged intramuscular injections, such tubes were left in place up to four days without apparent reaction.[43]

Experimental work is being done to determine the suitability of polyvinyl chloride as a tendon substitute. Polyvinylidine chloride (Saran) filaments have been studied with a view to their use as suture materials. They show good knotting strength, are sterilizable and may prove useful in surgical practice.[4]

Vinyl resins have been used to form protective coatings on the skin for patients with ileostomies and colostomies.[44] Several years ago, De. Bakay and Giles[45] developed the following solution which is applied to the skin before surgery:

Polyvinyl acetate (Vinylite, grade AYAF)	**25.00 Gm.**
Acetone	**100.00 cc.**
Nitrocellulose	**1.32 Gm.**
Phenol	**0.80 Gm.**

The film formed after evaporation of the solvent possesses such desirable characteristics as: impermeability to bacteria; bactericidal action; nonirritancy; transparency; adhesiveness to the skin; elasticity; and, easy incisibility.

Of related interest is a flexible plastic-liquid adhesive described by Rosenberg.[46] Easily removed from the skin without leaving debris and intended to avoid the irritation associated with ordinary adhesive plasters, the liquid is made from:

Polyvinyl butyrol resin	**20.0 Gm.**
Alcohol (95%)	**120.00 cc.**
Ether	**20.0 cc.**
Caster oil	**10.0 cc.**

Plasticized combinations of vinyl acetate and vinyl chloride which soften at low temperatures have been

employed for making supporting casts. Such combinations may also be formed into sheets or calendered on to cloth to make coated bandages.[47]

The cellulose derivatives most frequently used in medical practice are cellophane and cellulose nitrate. Because of its smoothness, toughness, pliability and transparency, cellophane has attracted the attention of surgeons. Various reports indicate that the material has been used as an interposition membrane in arthroplasty of the hip and knee joints[48] and similar operations.[49, 50] Nonetheless, after a study of all the factors involved, Ingraham and his associates[3] came to the conclusion that cellophane is a strong tissue irritant when used in the body.

However, cellophane has found wide use as a protective covering over open or infected wounds.[51] Kimbrough,[52] for example, found that lesions dressed with cellophane appear to heal more rapidly. Scar tissue is reduced to a minimum and fewer dressings are needed. As a result there is saving of time and material. He found cellophane dressings to be of special value in chronic ulcers and in wounds involving a loss of substance. Cellophane has also been suggested[35] as a backing or support for skin grafts.

In the past, cellophane cylinders were used in a rapid, bacteriologically safe method for drying blood plasma.[53] This procedure has since been replaced by other methods. Very recently, however, cellophane tubes have found important use in a new "artificial" kidney. Developed by Kolff,[54] this device is designed to remove urea from the blood of patient's whose kidneys function improperly because of disease, injury or shock. Blood from the patient circulates through cellophane tubing wrapped around a drum, which revolves in a saline solution. By the use of this apparatus, the kidney is given a chance to rest and recover. Such treatment has meant a difference between life and death for some patients.

Cellulose nitrate, familiar as Celluloid, the first modern plastic, also has a number of important medical and surgical applications. Some years ago, Ney[55] performed several hundred operations in which cranial defects were repaired with cellulose nitrate plates. He reported that the plastic was well tolerated by the tissues and that infection appeared in only five cases.

Very recently, at a meeting of the American Association for the advancement of Science, Kadish[56] noted that cellulose nitrate (Lusteroid) tubes may provide a more accurate measure of coagulation time than do glass tubes, since the plastic tubes have less tendency to accelerate coagulation. When the tubes have become standardized, they may offer a more accurate means for indicating a tendency to thrombosis.

Of course, pyroxylin, a form of cellulose nitrate, has long been used in the preparation of official collodions like flexible collodion, salicylic collodion, and styptic collodion. Many "corn remedies" and other film-forming dermatological collodions are made with pyroxylin solutions.

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found little application and medicine and surgery as yet, Ingraham, Alexander and Matson[1] are of the opinion that its flexibility, transparency and toughness and the facility with which it can be made into any size of tube or thickness of film suggest multiple uses in the field of surgery. As a result of their own experiments to determine the reaction of cerebral tissue to this plastic, they have stressed the importance of obtaining absolutely pure polyethylene for surgical use.

Indicative of polyethylene's possibilities is Meyers,[57] procedure of inserting a piece of small-caliber polyethylene tubing into a vein through a needle. This provides a satisfactory means of giving repeated or constant intravenous injection through the same tube over prolonged periods without immobilizing the arm or leg. Where intermittent injections are needed, the tube is filled with saline solution after each injection and the open end is plugged. With this method no clotting takes place in the tube and no tissue reaction to the tube was noted.

Occasionally, other kinds of plastics have found therapeutic applications. For example, Collinson[58] has reported that urea-formaldehyde resin has been used successfully for setting fractures. The bandages are permeable to X-rays, resistant to water, free from brittleness and are of light weight. In addition, they are resilient, strong and rigid.

Plastic arm splints, made of a light, strong phenolic fibric board, have been used to rapidly immobilize fracture cases. These splints were used during the war to speed up the evacuation of battle casualties.[59] "Plasti-Drip" units, made of phenolic resin-impregnated filter cloth, have found important use in blood transfusion sets.[60] Bakelite has also been used to make a hip cup in an arthroplasty.[61]

There are interesting possibilities in the medical field for synthetic ion-exchange resins. Already used for purifying water, for concentrating thiamine,[62] and for removing calcium from blood to prevent coagulation,[63] these resins show promise as superior antacids. Anion exchange resins (Amberlite IR-4) were found by Martin and Wilkinson[64] to be nontoxic and highly efficient for neutralizing gastric acidity. Advantages claimed for these resins, when used in proper dose and particle size, are: rapid action, inhibition of peptic activity without acid rebound, no disturbance of the mineral balance, and freedom from undesired effects like diarrhea or constipation.

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Proprietary Meeting

(Continued from page 769)

"From observations made during more than thirty years service in the Food and Drug Administration, I am deeply gratified at the progress I have seen in your industry. Comparing what is on the druggists' shelves today with what was there some years ago, it is apparent that the improvement of your products, in their usefulness and in the integrity of their composition and labeling, is continuing always to higher levels.

"Reports of inspection of your factories reveal an impressive record of the number and extent of improvements you have made over the years. Good housekeeping in your factories insures sanitary conditions and avoids contamination of output. Systems of checks and controls insure proper identification of ingredients, that they are of appropriate quality and purity, that no errors occur in weighing or measuring, and that the finished product is what it should be. These controls extend on to the finished packages in which the article is presented to the public. In consequence, the products of your industry occupied but little space in the history of violations recounted in the latest annual report of the Food and Drug Administration."

Association President Kenneth A. Bonham, in his report, called upon members to set the pace in carrying the truth about the "Free Enterprise System" to the people of this country. "The truth is that no other system has ever given so many people so much and can give our people even more, if we give it a chance," he said. Stating that: "Free enterprise is not a system permanently ordained by some supernatural force but

HILARY SAYS:

MUCHISIMAS GRACIAS, Senores y Senoras. Nunce pase tal noche! Cualquier hombre es bueno para eso.—Estamos un poquillo cansaditos.—Ya lo creo! (I only know a couple words but it sure puts my sombrero on one side to throw 'em around.)

WELL, anyway: I'm back from the Good Neighbors: Mexico and Cuba. As neighbors—we're lucky to have them! Good—they certainly are!

YOU swoop down from altitude (you think) but when you land, Mexico City is still altitude. The Reforma Hotel, the Posada del Sol, the Ritz—as well as the smaller Emporio, Maria Cristina and Montejo are all fine places to hang your hat. The longer you stay—the longer you'll want to stay. Mexicans make you feel that way. Dinner at Ciro's—super-de-duper!! (When I was a boy, the family called that meal "supper.") While you are eating—you get an additional appetite, because Diego Rivera did something to the walls: Not exactly a "Wall Flower",—topped by a hat and soulful with shoes, only,—his lovely-ladies creations are surrounded by flowers—and little else. Stuff caliente! Muy simpatico! . . . Should you, however, prefer pancakes with sour cream, the Santa Anita is excellent for "enchiladas con crema." Before leaving Mexico City, be sure to pick up some silver gadgets: pins, trinkets, brooches, which are artistically designed and beautifully executed. Adios.

". . . and he floats through the air with the greatest of ease"—to Cuba. . . . Down below: the West Indies, sapphire seas, green hillsides, orange cliffs, booming surf—and even from up high, Cuba distinguishes itself by its thatched roofs and flat sugar plantations. La Habana: here hospitality and friendship were born! Saber vivir es la clave! And Cubans know how to live.—Business, luncheon, business, siesta, cocktails, fiesta,—many beautiful "orchidas de noche," . . . and, by the way, if you want to go shopping, drop in at El Patio, S. Rafael 58, Habana for the very finest in alligator hand bags, wallets, purses, picture frames etc. They are exquisitely made!

IT WAS nice, just the same, to get back to the old backyard and Good Manhattan Neighbors.

GOOD U. S. Neighbor: you are as near to me as a three-cent stamp or a Benny-Boast-Card. Drop me a line (no worm, I'm not a fish—although I'm already hooked). Why? Well, I'd have to have your address to send you some f r e e AMBER Samples:

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AMBER No. 317	16.00 " "
WOOD AMBER No. 642	20.00 " "

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merely a way of living and doing business that has been set up in very few countries and really survived in only one, the United States," Mr. Bonham warned that our free enterprise system must continue to prove its worth if it is to survive. "We are living in a changed world," he said, "and no industry can last for long unless it fills a need, and it cannot fill present needs with past thinking."

The Association reelected as president, Kenneth A. Bonham, president of the Emerson Drug Company, Baltimore. Other officers elected were Dr. Frederick J. Cullen, executive vice-president; Vice-presidents, Lupton Patten, of Chattanooga Medicine Company, Chattanooga, Tenn.; H. H. Hoyt, Carter Products, Inc., New York; and Joseph D. Bohan, Centaur Company Division of Sterling Drug, Inc., New York (Mr. Bohan succumbed May 24 to a heart attack suffered in Atlantic City May 18); A. K. Barta, secretary-treasurer.

Entertainment features of the meeting included a cocktail party Sunday night given by S. B. Penick & Co., a cocktail party given Monday night by the Maryland Glass Co., and another cocktail party given Tuesday night by the J. T. Baker Chemical Co. The ladies were entertained at a luncheon and fashion show on Tuesday at Haddon Hall. On Tuesday evening a banquet was held at Haddon Hall followed by a minstrel show, a bathing suit exhibition and specialty acts, after which there was dancing. William T. Allen, of Topics Publishing Company, was chairman of the entertainment committee.

Amino Acids for Medicinal Use

(*Continued from page 771*)

valine, isoleucine and leucine. While the rat seems to be able to change d-tryptophane to the natural form, the human being does not have this ability. Thus, even though alkaline hydrolysis does not destroy tryptophane, the method is of little value for the preparation of hydrolysates for feeding purposes.

There are infinite variations and modifications of these three basic methods of hydrolysis. Besides the enzymes from animal sources, those from plant sources, such as papain have been extensively investigated. There are many possible variations in the concentration of acid, protein and time and temperature. Certain metals and lately sulfonated esters have been used as catalysts.

The amino acid pattern of any hydrolysate will depend on[1] the amino acid pattern of the starting protein or proteins, and[2] the method of hydrolysis and purification. Thus, strong acid hydrolysis destroys tryptophane and any hydrolysate so prepared will have to be supplemented with tryptophane. The final mixture of amino acids can be altered easily by the addition of pure amino acids or fractions obtained by partial separation of hydrolysates.

The protein from which the hydrolysate is made influences to a large extent the amino acid pattern and the resulting biological value of the final mixture. Casein

has been used because the commercial grades are nearly pure and very low in carbohydrate and ash. It is important, especially in acid hydrolysis, that the carbohydrate content be small as the aldehyde groups combine with the amino acids to form imines which seem to be broken down so as to destroy the amino acid entity at least in the case of tryptophane.

Lactalbumin is a protein of better biological value than casein and is coming into greater use as supplies of low ash content become available. The use of other animal proteins of high biological value such as blood fibrin has been hindered by lack of a sufficient supply. The vegetable proteins such as that of the soy bean are usually of lower biological value, but can be improved readily by the addition of pure amino acids. Yeast proteins have a distinct disadvantage for medicinal use of high purine content.

IN SUMMARY:

Products designed for oral feeding should have the following characteristics:

(a) Good source of the essential amino acids.
(b) Proportion of the amino acids should be such as to be of value in nitrogen metabolism of the human being.
(c) The amino acids should be readily available for absorption.
(d) The material should be of low, controlled and known ash content.
(e) The material should be free of toxic substances.
(f) The number of bacteria should be at a minimum and the material should be free from pathogens.
(g) The products should be stable under the conditions of packaging.

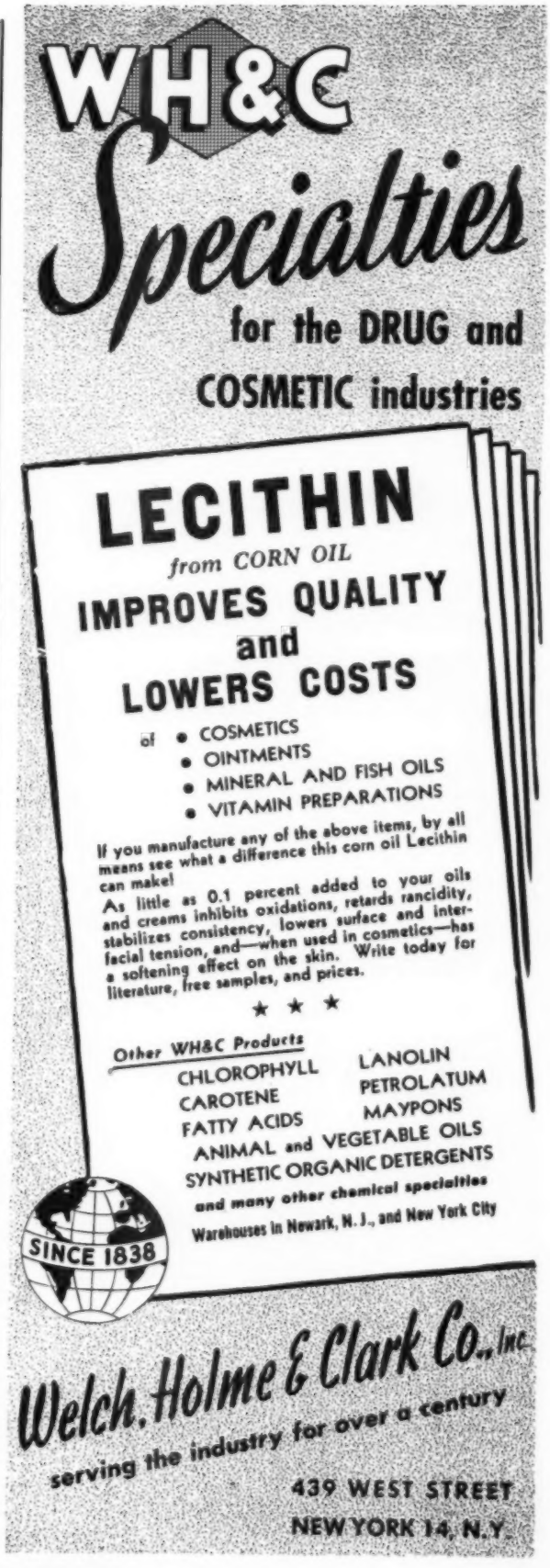
Those products designed for intravenous use should meet the following additional requirements. The solution should be:

(a) Non-antigenic
(b) Sterile
(c) Able to be administered without reactions
(d) Non-pyrogenic
(e) Reasonably stable

The three common time-tested methods of hydrolysis are:

(a) Enzymatic . . . Hydrolysis by this method results in little or no destruction of amino acids. The difficulties in preparing solutions for parenteral use are in providing freedom from: (a) pyrogens, and (b) antigens.
(b) Acid Hydrolysis . . . Strong acid destroys at least tryptophane, which is an indispensable amino acid. It is, however, easier to assure freedom from pyrogens and molecules large enough to be antigens.
(c) Alkaline Hydrolysis . . . Alkali racemizes the amino acids, thus reducing the proportion which can be utilized. However, it does not destroy tryptophane.

The proteins usually used for the preparation of hydrolysates are casein, lactalbumin, fibrin, soy bean and yeast.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The T.G.A. Convention

(Continued from page 773)

Bristol-Myers Company; Walter W. Edman, Ralph L. Evans Associates; Chandler Holt, Bourjois Manufacturing Corporation; Dr. Walter Langer, Dr. Langer Co., Division of Chemical Research & Manufacturers, Inc.; Jean R. Martin, Coty, Inc.; Dr. Everett G. McDonough, Evans Chemetics, Inc.; Dr. E. C. Merrill, Rexall Drug Company; Edward P. Morrish, Jacqueline Cochran; Dr. Kenneth L. Russell, Colgate-Palm-olive-Peet Company; Pierre L. Rougny, Houbigant Sales Corporation; Dr. Mark W. Tapley, Sterling Drug, Inc.; Dr. Walter A. Taylor, Pond's Extract Company; John M. Williams, Avon-Allied Products, Inc.

The Scientific Section of the Association now has a membership of about 400, according to Mr. Goulding. With reference to the need for research, He said:

"That company which is completely satisfied with the product which it makes and is content to let things go along as they are, is in a most unenviable and dangerous position. It is asking for trouble—and will get it—from that competing company which maintains a research staff that is constantly trying to improve present products and frequently makes the best products better. You are familiar with those cases where a company has had the lion's share of a particular market only to awake from their complacency and find that a competitor, or someone not previously considered a competitor has taken the market from them by introducing a different and superior product. Research is your only protection.

"There are too many things we don't know in this industry. We know too little about the action of cosmetics and cosmetic ingredients on the skin. There is the feeling among technical men of this industry that this is rich field badly in need of investigation. Biological investigations are on the increase as witness the frequency of such papers in recent programs of the Scientific Section."

Paul H. Douglas, of Bourjois, Inc., was reelected president of the Association. Other officers were reelected with the exception of retiring treasurer Paul F. Vallee, of Roger & Gallett, who became honorary treasurer, and who was succeeded in the treasurer's post by Richard Stern, of Fred Mulhens, Inc. Two new directors were chosen: William F. Denney, of Frances Denney & Company, Philadelphia, and Richard Salomon, of Charles of the Ritz, New York.

This Changing Industry

(*Continued from page 775*)

about what the other fellow was doing with respect to these new chemicals. Under such circumstances, an increasing amount of information regarding cosmetics and their composition became common knowledge, and this helped to start the breakdown of the secrecy—a breakdown which still has a way to go, but is getting there rapidly.

On the whole the changes that are taking place in this industry are definitely for the benefit of the industry and are certainly for the benefit of the users of the products of the industry. Science has entered all branches of the industry to a far greater extent than ever before with a consequent improvement in the products which the drug and cosmetic manufacturers are offering. Within recent years the industry has rid itself of much of the fringe preparations and manufacturers, and today there are to be found extremely few people who have the temerity to criticize the industry or any of its products.

Your Trade-Mark Record

(*Continued from page 825*)

27. Why Must I Search Before I Adopt And Use A New Mark? The duty and responsibility is squarely on your shoulders to make sure that you are not infringing when you commence to use a certain mark. The registration of another's trade-mark is constructive notice directed to you. Thus, you must find out if your proposal is in the clear, or suffer the consequences of a possible costly and damaging act of infringement. This is obviously an important argument for registering all your own trade-marks in actual use to form such bars to others.

28. But Will Searches Give Greater Security? Definitely yes! As more people avail themselves of the obvious advantages of registration under the new Act, a search will be more conclusive in its results. Hidden unregistered trade-marks of prior use will not be so common. Even in the case of genuine concurrent use by two parties, the best the user of a prior unregistered mark can hope to get is possible continued use solely in that local territory in which he has always sold, with a possible concurrent registration also limited by territorial factors.

29. Must I Therefore File All My Unregistered Marks? It is not compulsory! But the new Act gives so many advantages that it is a practical necessity. Why spend thousands on labels, packaging and advertising and ignore the core of it all—the trade-mark. Remember, once a trade-mark goes on the Register, it is warning—without further notice—that anyone in the U. S. A. adopting the mark, does so at his peril. The "constructive notice" (question 26) answers the query you so often ask:—"What do I get when I do register?" Why should I bother? If instead of relying on such constructive notice, an actual notice as advocated in question 25 is used, the trade-mark registrant places himself in a strong position which he can readily maintain against infringers, innocent or otherwise.

KOMMON/ SCENTS!

We're fascinated by the repeated charges that Hollywood is "Red." Perhaps "regurgitated" is more apt than "repeated."

•

Somehow it gets a little tough to think of Louis B. Mayer as a gent who'd rather picket than pocket. It's hardly conclusive that a man who can afford cavier is a Russophile.

•

It may well be that there's propaganda in American pictures. But there would seem to be some confusion in cause and effect in blaming the Civil War on "Gone With The Wind."

•

Certainly the major portion of Hollywood's production fails to bear out a collectivist theme. We've somehow gotten the idea that the bouncy Misses Grable and Turner stimulate more thoughts of extremely private enterprise.

•

In recent years, only Mae West suggested "mass" appeal and her popularity was as exciting and short-lived as a politician's memory.

•

The clincher against moviedom's critics came when the Hollywood Bowl operators refused their premises for a Henry Wallace speech. You remember Henry? He recently played the American Government in Exile.

•

All charges, of course, should be carefully sifted. But we wouldn't nominate the Ku Klux Klan as an impartial body for the job. There's a difference in drawing the line between right and wrong and "right" and "left."

•

There undoubtedly are Reds in our country. But isn't it going far afield in blaming it all on Technicolor?

•

Why all this? 'An anonymous column reader sent me a subscription to the Daily Worker. This is to inform him to cancel the subscription. My mother weaned me from comic pages at an early age.

•

Well, guess it's just a matter of time before a couple of Congressmen start investigating the Cosmetic Industry. What a time we'll have trying to convince them that only aesthetics is responsible for making most nail polish Red!

George Fiedler

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DAWKIN'S HAIR TREATMENT—VI—H—487,503
Eunice Dawkins, Columbus, Ohio
Ser. Aug. 24, 1945 D.U. Aug. 3, 1945

DAYTEX—VI—M—500,300
General Prod. Co., Brooklyn, N. Y.
Ser. Apr. 16, 1946 D.U. Nov. 19, 1946

DERMA CULTURE—VI—CM—495,596
Dermaculture, Ltd., Los Angeles, Calif.
Ser. Jan. 29, 1946 D.U. Jan. 20, 1939
Reg. 427,625 Feb. 11, 1947

DERMO-SEPT—VI—C—498,553
Fred R. Wallich (Wallich Lab.) Los Angeles, Calif.
Ser. Mar. 19, 1946 D.U. Mar. 1942

DET—IV—A—501,442
Continental Chem. Co., Sacramento, Cal.
Ser. May 4, 1946 D.U. Apr. 17, 1946

DIASMOL—VI—M—505,088
U. S. Rubber Co., New York, N. Y.
Ser. July 3, 1946 D.U. Mar. 8, 1935

DIAVOLO—VI—B—503,384
Parfums Barroche, Inc., New York, N. Y.
Ser. June 6, 1946 D.U. June 3, 1946

DIFUSO (With Des)—VI—T—502,035
The Tanglefott Co., Grand Rapids, Mich.
Ser. May 13, 1946 D.U. Feb. 20, 1946

DU-AL-CIDE—VI—T—502,516
Imperial Chem. Co., Shenandoah, Iowa
Ser. May 21, 1946 D.U. Dec. 31, 1945

DUK-DUK—VI—B—493,515
Marie Richelieu Parfum Odesant, Inc., New York, N. Y
Ser. Dec. 18, 1945 D.U. Feb. 7, 1944

EAU DE NILE—VI—BC—499,097
Elizabeth Arden Sales Corp., New York, N. Y.
Ser. Mar. 28, 1945 D.U. Mar. 16, 1926
Reg. 427,627 Feb. 11, 1947

ECLAT—VI—BCH—504,965
Colgate-Palmolive-Peet Co., Jersey City, N. J.
Ser. July 2, 1946 D.U. Feb. 21, 1911

EGO—IV—A—498,834
Ernest O. Gillam (Gillam Soap Works) Forth Worth, Tex.
Ser. Mar. 23, 1946 D.U. Jan. 1, 1946

ELGIN AMERICAN—VI—BC—482,803
Illinois Watch Case Co., Elgin, Ill.
Ser. Apr. 30, 1945 D.U. Apr. 23, 1945

ESCLAVE—VI—B—515,201
Soc. d'Etudes et d'Exp. de la Parfum de Luxe, Paris, France
Ser. Jan. 2, 1947 D.U. July 5, 1945

ET CETERA—VI—ABCDEH—498,431
Alfred D. McKelvy, New York, N. Y.
Ser. Mar. 18, 1946 D.U. Mar. 10, 1946

EVICTOR—VI—T—502,529
O'Sullivan, Inc., Baltimore, Md.
Ser. May 21, 1946 D.U. Dec. 14, 1945

EX-GRAY—VI—H—493,617
A. W. & R. J. Orzo (Ex-Gray Prod. Co.) New York, N. Y.
Ser. Dec. 20, 1945 D.U. Apr. 30, 1936
Reg. 427,618 Feb. 11, 1947

FEMME—IV—A—502,178
Antoine de Paris, Inc., New York, N. Y.
Ser. Mar. 16, 1946 D.U. Apr. 20, 1946

FLUIDEX—VI—C—503,337
William F. Zimmerman, New York, N. Y.
Ser. June 5, 1946 D.U. Apr. 8, 1946

FOUNTAIN OF YOUTH—IV—A—494,634
George Edward Sachs, New York, N. Y.
Ser. Jan. 11, 1946 D.U. Dec. 14, 1942

FREOSOL—VI—T—499,051
Denmore Prod. Corp., New York, N. Y.
Ser. Mar. 27, 1946 D.U. Mar. 25, 1946

GAMBLE—VI—B—499,292
Louis A. Stern, Los Angeles, Clif.
Ser. Mar. 29, 1946 D.U. July 1, 1945

GENIDUST—VI—T—503,075
General Chem. Co., New York, N. Y.
Ser. May 31, 1946 D.U. May 1, 1946

GOLD CAMELLIA—VI—B—511,714
Jean Vivaudou Co., Inc., New York, N. Y.
Ser. Oct. 29, 1946 D.U. June 1, 1946
GOLD RUSH—II—M—513,961
Elizabeth Arden Sales Corp., New York, N. Y.
Ser. Dec. 10, 1946 D.U. Feb. 1, 1946

HEAD UP—VI—H—502,388
The Mennen Co., Newark, N. J.
Ser. May 18, 1946 D.U. Apr. 3, 1946
HI DAD—IV—A—493,923
Samuel Greenblatt (Monogram Soap Co.), Hollywood, Calif.
Ser. Dec. 27, 1945 D.U. Jan. 1, 1942
HI MOM—IV—A—493,924
Samuel Greenblatt (Monogram Soap Co.), Hollywood, Calif.
Ser. Dec. 27, 1945 D.U. Jan. 1, 1942
HOLLYWOOD SECRET—VI—BCGH—501,791
Thomas Ung (United China Trading Co.), Los Angeles, Calif.
Ser. May 9, 1946 D.U. Apr. 2, 1946
HY-FO—VI—T—500,478
Edw. Livingston & Sons, Kansas City, Kansas.
Ser. Apr. 18, 1946 D.U. Feb. 1, 1946

INDUCEMENT—VI—C—506,502
Botany Worsted Mills, Passaic, N. J.
Ser. July 30, 1946 D.U. June 21, 1946
IZAL—IV—A—501,000
Newton, Chambers & Co., Ltd., Sheffield, Eng.
Ser. Apr. 26, 1946 D.U. 1893

JADESTICK—II—M—514,680
Associated Prod., Inc., Chicago, Ill.
Ser. Dec. 23, 1946 D.U. Aug. 19, 1946
JE L'AI—VI—ABC—489,815
Henry S. Miles, Brooklyn, N. Y.
Ser. Oct. 11, 1945 D.U. Aug. 1945
JUST FOR FUN—VI—B—503,966
Avon Prod. Inc., New York, N. Y.
Ser. June 15, 1946 D.U. Oct. 25, 1945

KIKKI—VI—B—490,454
Marie Richelieu Parfum Odesant, Inc., New York, N. Y.
Ser. Oct. 24, 1945 D.U. Feb. 7, 1944
KOLOR TREET—VI—AH—494,180
Duart Manufacturing Co. Ltd., San Francisco, Calif.
Ser. Jan. 2, 1946 D.U. Dec. 10, 1945
KOT-CHA—VI—ADMST—501,162
Louis C. Brown (Kot-Cha Co.) Sasakwa, Okla.
Ser. Apr. 30, 1946 D.U. Jan. 1, 1936

LADY OF HOLLYWOOD—VI—BCGH—501,793
Thomas Ung (United China Trading Co.) Los Angeles, Calif.
Ser. May 9, 1946 D.U. April 2, 1946
LAND OF NOD—VI—L—505,034
Avon Prod. Inc., New York, N. Y.
Ser. July 3, 1946 D.U. Apr. 1, 1946
L'ARIA—VI—B—490,491
Janain Corp. New York, N. Y.
Ser. Oct. 25, 1945 D.U. Oct. 20, 1945
LIP-COTE—VI—C—491,335
Irresistible, Inc., New York, N. Y.
Ser. Nov. 9, 1945 D.U. Oct. 30, 1945
LONQUIN—VI—H—502,443
Cosmo Longo (The Lonquin Co.) Toronto, Ontario, Canada
Ser. May 20, 1946 D.U. 1930
LOOK—VI—H—502,389
The Mennen Co., Newark, N. Y.
Ser. May 18, 1946 D.U. Apr. 3, 1945
LOOK—VI—D—512,436
Marton, Inc., Seattle, Wash.
Ser. Nov. 12, 1946 D.U. Oct. 2, 1945
LUSTRE-CREME—VI—A—503,974
Kay Daumit, Inc., Chicago, Ill.
Ser. June 15, 1946 D.U. Mar. 11, 1944
LYNX—VI—B—503,110
McKesson & Robbins, Inc., New York, N. Y.
Ser. May 31, 1946 D.U. May 14, 1946

MAKE BELIEVE—VI—BCEH—500,898
Virginia Nicholson Roger, Memphis, Tenn.
Ser. Apr. 25, 1946 D.U. Apr. 15, 1946
MAKE-UP TIME—VI—ABC—498,775
Franz Koenigsberger (Kinghill Lab) New York, N. Y.
Ser. Mar. 22, 1946 D.U. Feb. 26, 1946
MARTIN, J.Q.A.—VI—H—499,949
Goodwill Ind. J. Q. A. Martin, Inc., New Bern, N. C.
Ser. Apr. 10, 1946 D.U. Aug. 16, 1939
MEDOSOL—VI—T—512,026
Shell Oil Co., Inc., San Francisco, Calif.
Ser. Nov. 4, 1946 D.U. Sept. 9, 1946

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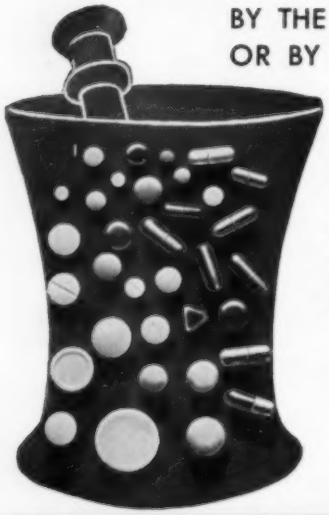

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MERRIE MERRIE (and des.)—VI—C—502,256
Henri Bendel, Inc., New York, N. Y.
Ser. May 17, 1946 D.U. Apr. 23, 1946
MING YU—VI—ABC—489,378
Assoc. Prod. Inc., Chicago, Ill.
Ser. Oct. 4, 1945 D.U. Aug. 15, 1945
MINK—VI—B—501,742
Greta Michele Karpfen (Michele Perf.) Hollywood, Calif.
Ser. May 9, 1946 D.U. June 1941
MINUS—VI—D—505,388
Rene Joseph Bienvenu (The Pronto Co.), Alexandria, La.
Ser. July 11, 1946 D.U. Mar. 3, 1946
MITROL—VI—T—504,478
Thomas H. Donahue (Donahue Manufacturing Co.) Los Angeles, Calif.
Ser. June 24, 1946 D.U. Feb. 25, 1946
MON NUMERO—VI—BC—504,663
Charles Edouard, Parfumeur, Paris, France
Ser. June 27, 1946 D.U. Jan. 29, 1945
MONOLA—(With des)—VI—H—492,119
Monogla M. Barnes, Kansas City, Mo.
Ser. Nov. 23, 1945 D.U. July 7, 1939
MOONLIGHT MENACE—VI—B—500,154
Evelyn Westall, (Parfums Evyan) New York, N. Y.
Ser. Apr. 12, 1946 D.U. Apr. 1, 1946
MOTHER O'MINE—VI—BCEH—500,899
Virginia Nicholoson Rogers, Memphis, Tenn.
Ser. Apr. 25, 1946 D.U. Apr. 15, 1946

NANTES 18—VI—BC—490,380
Griet & Cia., Buenos Aires, Argentina
Ser. Oct. 23, 1945 D.U. Aug. 23, 1940
Reg. 427,610 Feb. 11, 1947
NATTIER—VI—BC—489,482
Parfums Nattier S.A., Paris, France
Ser. Oct. 5, 1945 D.U. Oct. 1944
NAVITA—VI—E—503,833
Imogene Shepherd, Ltd., Chicago, Ill.
Ser. June 13, 1946 D.U. July 7, 1936
NEXT KISS—VI—C—503,963
Affiliated Prod. Inc., New York, N. Y.
Ser. June 15, 1946 D.U. May 7, 1946

ODOT'S—VI—DT—496,986
Command. Vennootschap Chem. Fabr. Rids, Ijmuiden, Hol.
Ser. Feb. 19, 1946 D.U. Sept. 5, 1939
ORMOLAC—VI—T—499,962
Ormont Drug & Chem. Co., Inc., New York, N. Y.
Ser. Apr. 10, 1946 D.U. Mar. 28, 1946
ORTHOCIDE—VI—T—500,278
California Spray-Chem. Corp., Wilmington, Del.
Ser. Apr. 16, 1946 D.U. Mar. 22, 1946
ORTHO-PET—VI—T—500,280
California Spray-Chem Corp., Wilmington, Del.
Ser. Apr. 16, 1946 D.U. Mar. 22, 1946
ORTHO-ROACH—VI—T—500,281
California Spray-Chem. Corp., Wilmington, Del.
Ser. Apr. 16, 1946 D.U. Mar. 22, 1946
ORTHO-TOX—VI—T—500,282
California Spray-Chem. Corp., Wilmington, Del.
Ser. Apr. 16, 1946 D.U. Mar. 22, 1946

PAMAR—IV—M—497,191
Pamar Mfg. Co., Los Angeles, Calif.
Ser. Feb. 25, 1946 D.U. Dec. 1, 1945
PARFUMS GEILLE—VI—BC—491,970
Frederic Geille, Neuilly-sur-Seine, France
Ser. Nov. 21, 1945 D.U. Oct. 18, 1945
PARFUMS VERCHERE—VI—BC—502,646
Les Parfums Verchere, Paris, France
Ser. May 23, 1946 D.U. Mar. 20, 1945
PEGIT—VI—H—501,886
Robert H. Van Sant, Alexandria, Va.
Ser. May 10, 1946 D.U. Apr. 15, 1946
PEPPI—(With des)—VI—B—497,570
Joseph Rubenstein, Chicago, Ill.
Ser. Mar. 2, 1946 D.U. Aug. 15, 1939
PHYGON—VI—T—500,846
U. S. Rubber Co., New York, N. Y.
Ser. Apr. 24, 1946 D.U. Dec. 15, 1945
PHENOL SOBIQUE—VI—T—499,894
Hance Bros. & White Co., Phila, Penn.
Ser. Apr. 9, 1946 D.U. Sept. 4, 1863
PINK CAMELLIA—VI—C—505,667
Parfait, Inc., Chicago, Ill.
Ser. July 3, 1946 D.U. Apr. 1946
P. X.—VI—T—503,448
Internat. Appliance Corp., New York, N. Y.
Ser. June 7, 1946 D.U. May 9, 1946

PROLOGUE—VI—B—503,385
Parfums Barroche, Inc., New York, N. Y.
Ser. June 6, 1946 D.U. June 3, 1946

RED WITCH—VI—ABCDEFGH—503,044
Associated Prod. Inc., Chicago, Ill.
Ser. May 31, 1946 D.U. Apr. 22, 1946
RIBBY—VI—BCHT—496,888
Command. Vennootschap Chem. Fabr. Rids, Ijmuiden, Hol.
Ser. Feb. 19, 1946 D.U. Nov. 11, 1940
RONSARD—VI—BC—490,381
Griet & Cia., Buenos Aires, Argentina
Ser. Oct. 23, 1945 D.U. Jan. 25, 1943

SH—H—VI—B—503,525
Charles Neuschotz (Brumaire Perfumes) New York, N. Y.
Ser. June 8, 1946 D.U. May 29, 1946
SIEGFELD FOLLIES—VI—B—503,494
Bergere, Inc., New York, N. Y.
Ser. June 8, 1946 D.U. May 16, 1946
SIGNET—VI—BC—504,664
Charles Edouard, Parfumeur, Paris, France
Ser. June 27, 1946 D.U. Feb. 16, 1945
SL INC.—VI—H—487,871
Standard Lab., New York, N. Y.
Ser. Aug. 31, 1945 D.U. July 31, 1945
SLEEPY TIME—VI—L—505,036
Avon Prod. Inc., New York, N. Y.
Ser. July 3, 1946 D.U. Apr. 1, 1946
SOFTOL—VI—E—487,108
W. B. Associates, New York, N. Y.
Ser. Aug. 13, 1945 D.U. July 15, 1941
SPECIAL BOLTRONIZED—VI—T—499,443
St. Lawtence Chem. Co., Inc., Ogdensburg, N. Y.
Ser. Apr. 1, 1946 D.U. Jan. 8, 1946
SPECIAL OCCASION—VI—BCDEGH—500,559
Richard E. Nicholas, Chicago, Ill.
Ser. Apr. 19, 1946 D.U. Aug. 3, 1945
STAPO—IV—A—502,541
Stapo Chem. Co., Los Angeles, Calif.
Ser. May 21, 1946 D.U. Aug. 1, 1933
SU-DO—VI—F—504,337
Kay Daumit, Inc., Chicago, Ill.
Ser. June 21, 1946 D.U. Jan. 10, 1942
SU-DO—VI—F—503,977
Kay Daumit, Inc., Chicago, Ill.
Ser. June 15, 1946 D.U. May 1, 1942
SUNBASK—IV—A—501,810
Antoine de Paris, Inc., New York, N. Y.
Ser. May 10, 1946 D.U. Apr. 11, 1946
SWEL—VI—A—502,828
La Maur Prod. Inc., Minneapolis, Minn.
Ser. May 27, 1946 D.U. Feb. 28, 1944
SYNDEET—VI—T—500,847
U. S. Rubber Co., New York, N. Y.
Ser. Apr. 24, 1946 D.U. Mar. 7, 1946

T A C F—(With des)—VI—T—494,185
D. T. Haynes Dist. Co., Burdine, Ky.
Ser. Jan. 2, 1946 D.U. Oct. 15, 1945
TABARIN—VI—B—499,780
Bergere Inc., New York, N. Y.
Ser. Apr. 6, 1946 D.U. Feb. 9, 1945
TALLY-HO—IV—502,070
The Laner Co. Inc., New York, N. Y.
Ser. May 14, 1946 D.U. Sept. 20, 1924
TARTAN RED—VI—C—489,853
Jacqueline Cochran, New York, N. Y.
Ser. Oct. 12, 1945 D.U. July 9, 1945
TEN-ACIOUS—VI—C—504,590
Virginia Specialty Corp., Lynchburg, Va.
Ser. June 25, 1946 D.U. May 9, 1946
TRE-TEX—VI—T—501,650
E. L. Echerley, Hamilton, Ind.
Ser. May 8, 1946 D.U. Apr. 23, 1946
TREND—IV—M—511,831
Purex Corp. Ltd., South Gate, Calif.
Ser. Oct. 31, 1946 D.U. Oct. 18, 1946
TUVARA—VI—AB—503,682
Tuvache Co., New York, N. Y.
Ser. June 11, 1946 D.U. Jan. 24, 1946

VALAZE—(With des)—VI—ACH—500,419
Helena Rubinstein, Inc., New York, N. Y.
Ser. Apr. 17, 1946 D.U. Dec. 1, 1914
VAPOCOP—VI—T—504,743
Calif. Spray-Chem. Corp., Wilmington, Del.
Ser. June 28, 1946 D.U. May 24, 1946

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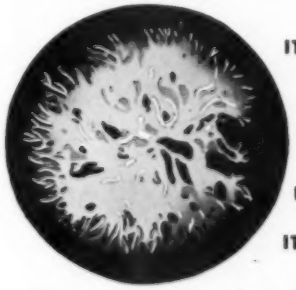

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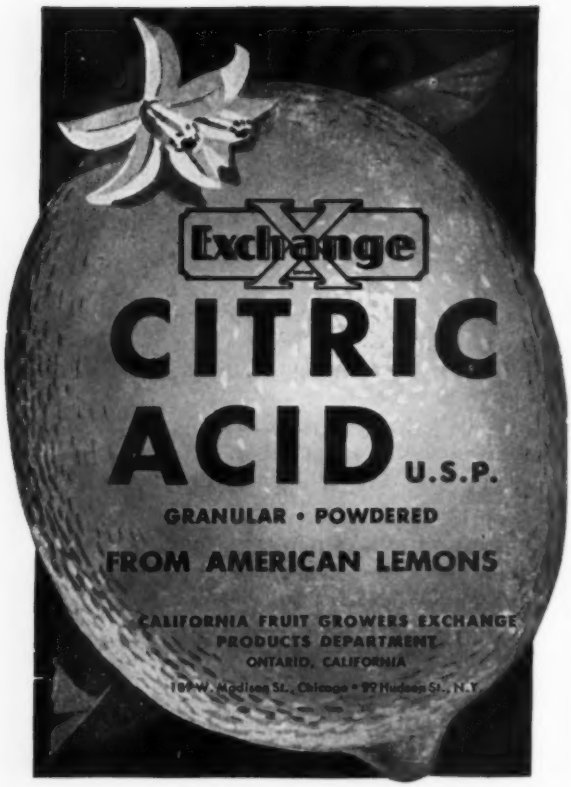

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VAPOSUL—VI—T—504,744
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Ser. June 28, 1946 D.U. May 24, 1946

VAPOTONE—VI—T—504,745
Calif. Spray-Chem. Corp., Wilmington, Del.
Ser. June 28, 1946 D.U. May 24, 1946

VEETOL (With Des)—VI—A—486,370
Morris Herman (Herman Prod. Co.) Brooklyn, N. Y.
Ser. July 27, 1945 D.U. Oct. 1937

VOLTEX—VI—T—504,746
Calif. Spray-Chem. Corp., Wilmington, Del.
Ser. June 28, 1946 D.U. May 24, 1946

WHITE BLOUSE—VI—D—500,963
Kay Daumit, Inc., Chicago, Ill.
Ser. Apr. 26, 1946 D.U. Jan. 10, 1942

WINCHESTER—VI—I—494,848
Irresistible, Inc., New York, N. Y.
Ser. Jan. 16, 1946 D.U. Jan. 7, 1946

WITCHES BREW—VI—BCE—503,937
Primrose House, Inc., New York, N. Y.
Ser. June 14, 1946 D.U. June 7, 1946

WOO BY LEGENDRE'—VI—B—499,282
Stephen E. Riley, (Stephen Riley Co.) Los Angeles, Calif.
Ser. Mar. 29, 1946 D.U. Oct. 15, 1945

WOODEE—IV—M—500,919
Windsor Wax Co., Inc., Hoboken, N. J.
Ser. Apr. 25, 1946 D.U. Sept. 5, 1942

WOODS—VI—FM—491,037
Charlie H. Woods & John H. Colbert, Buffalo, N. Y.
Ser. Nov. 3, 1945 D.U. 1942

XANDRA (With des)—IV—A—501,856
Maurella Prod. Co., Inc., New York, N. Y.
Ser. May 10, 1946 D.U. Jan. 1, 1937

YOUNG LAD—IV—A—501,275
Helene Pessl, Inc., New York, N. Y.
Ser. May 1, 1946 D.U. Dec. 12, 1945

McLARAN'S 3 OUT OF 5 (With des)—VI—H—498,523
Internat. 3 out of 5 Corp., El Monte, Calif.
Ser. Mar. 19, 1946 D.U. Jan. 5, 1942

No. 7777 (With des)—VI—B—474,377
Gilvo Chem. Mfg. Coy (Celbard), Melbourne, Australia
Ser. Sept. 19, 1944 D.U. Nov. 4, 1942

The Trade-Marks listed here are dated March 18, 1947 through April 8, 1947 inclusive.

A. E. P. (With des.)—IV—A—501,125
John R. Ford (Affiliated Engineering Prod.) Norfolk, Va.
Ser. Apr. 29, 1946 D. U. Jan. 11, 1946

ACADEMY AWARD—VI—C—500,342
Academy Award Prod. Inc., New York, N. Y.
Ser. Apr. 17, 1946 D. U. Feb. 6, 1946

ACADEMY AWARD—VI—B—497,706
Dermetics, Inc., New York, N. Y.
Ser. Mar. 6, 1946 D. U. Jan. 11, 1946

ACCOTOX—VI—T—501,224
American Cyanamid & Chem. Co., New York, N. Y.
Ser. May 1, 1946 D. U. Apr. 17, 1946

AGRITINE—VI—T—505,764
Monsanto Chem. Co., St. Louis, Mo.
Ser. July 17, 1946 D. U. July 9, 1946

AMBA-LOTION—VI—C—501,119
Kay Daumit, Inc., Chicago, Ill.
Ser. Apr. 29, 1946 D. U. Mar. 1, 1946

ARMORIAL—VI—BC—505,010
Edmond Rosens, Paris, France
Ser. July 2, 1946 D. U. May 31, 1939

BAUER'S 'TEEN-AGE—VI—C—499,414
Henry Izard (The Dave S. Bauer Chem. Co.) Mobile, Ala.
Ser. Apr. 1, 1946 D. U. Oct. 30, 1945

BEAVER—IV—I—511,705
The Temple Prod. Co., Washington, D. C.
Oct. 29, 1946 D. U. Oct. 16, 1946

BLUE ISLE—VI—ABC—498,996
Jaquet, Inc., New York, N. Y.
Ser. Mar. 26, 1946 D. U. Feb. 27, 1946

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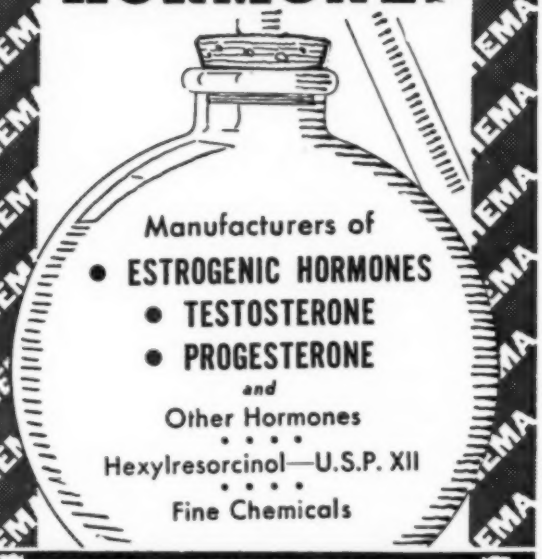

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Willow Reed System, Inc., Seattle, Wash.
Ser. Apr. 6, 1946 D. U. Mar. 10, 1946

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Standard Oil Co., of Calif., Wilmington, Del.
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Coronet, Inc., Detroit, Mich.
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Cutico, Inc., Orange, N. J.
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